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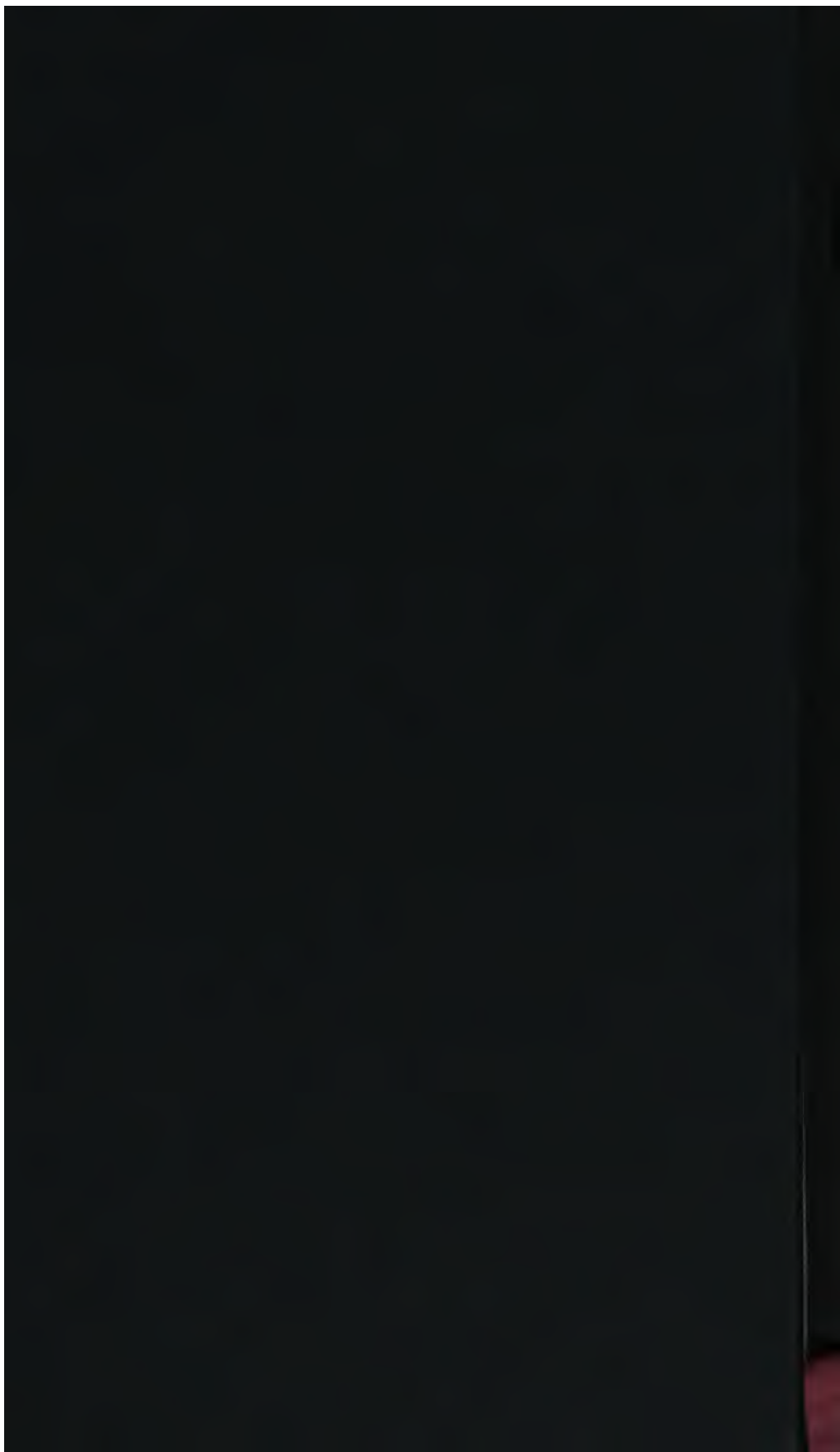
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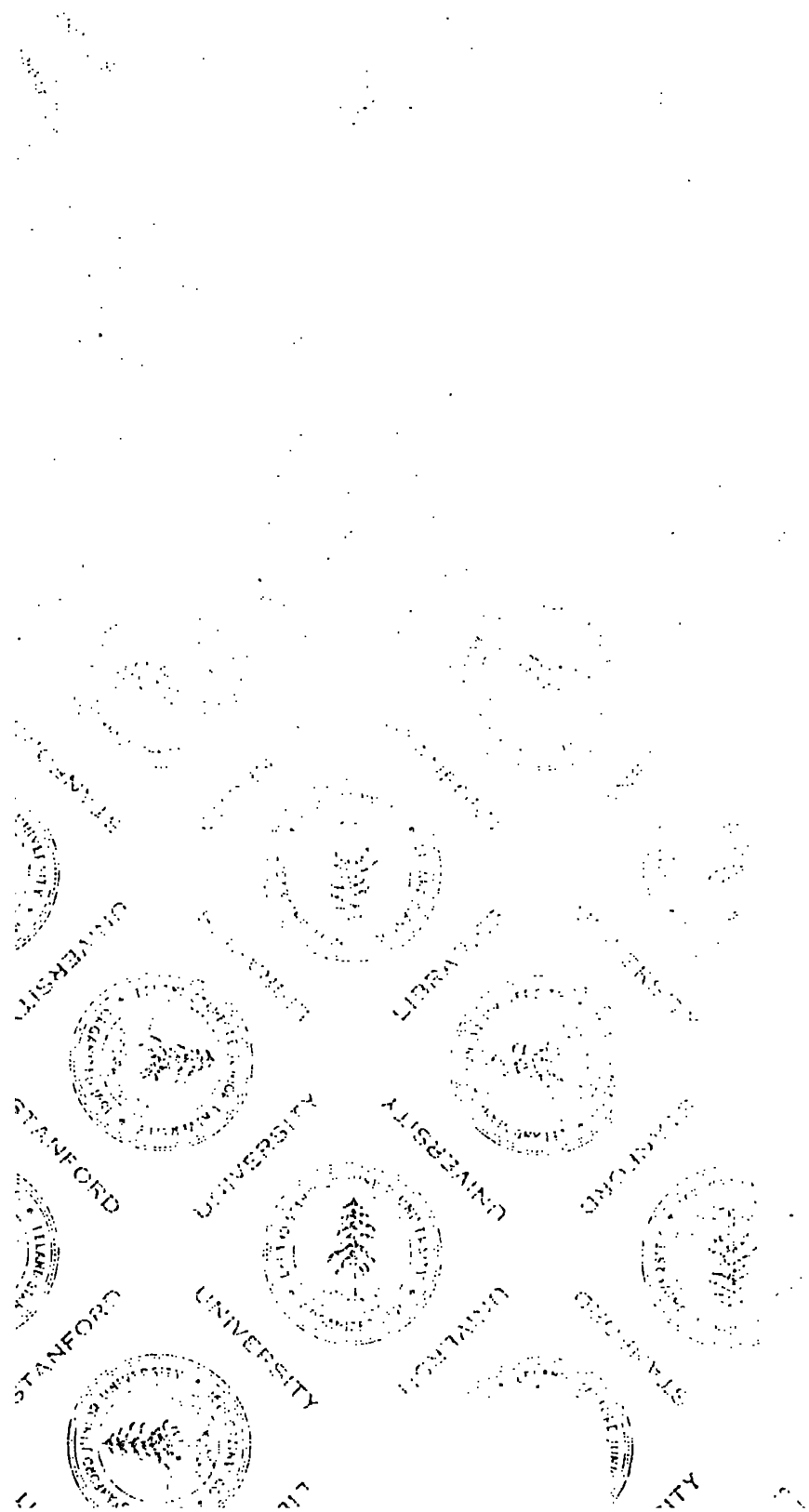
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NAVY DEPARTMENT APPROPRIA- TION BILL, 1923

HEARING

BEFORE

SUBCOMMITTEE OF HOUSE COMMITTEE ON APPROPRIATIONS

CONSISTING OF

MESSRS. PATRICK H. KELLEY (CHAIRMAN), BURTON L. FRENCH,
CHARLES R. DAVIS, JAMES F. BYRNES,
AND WILLIAM B. OLIVER

IN CHARGE OF THE

NAVY DEPARTMENT APPROPRIATION BILL FOR 1923

SIXTY-SEVENTH CONGRESS

SECOND SESSION



WASHINGTON
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COMMITTEE ON APPROPRIATIONS.

HOUSE OF REPRESENTATIVES.

SIXTY-SEVENTH CONGRESS, SECOND SESSION.

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NAVY DEPARTMENT APPROPRIATION BILL, 1923.

HEARINGS CONDUCTED BY THE SUBCOMMITTEE, MESSRS. PATRICK H. KELLEY (CHAIRMAN), BURTON L. FRENCH, CHARLES B. DAVIS, JAMES F. BYRNES, AND WILLIAM B. OLIVER, OF THE COMMITTEE ON APPROPRIATIONS, HOUSE OF REPRESENTATIVES, IN CHARGE OF THE NAVY DEPARTMENT APPROPRIATION BILL FOR THE FISCAL YEAR 1923, ON THE DAYS FOLLOWING, NAMELY:

MONDAY, MARCH 6, 1922.

STATEMENTS OF COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY; REAR ADMIRAL DAVID POTTER, CHIEF OF THE BUREAU OF SUPPLIES AND ACCOUNTS; AND MR. CLYDE REED, SPECIAL ASSISTANT TO THE PAYMASTER GENERAL.

Mr. KELLEY. We have with us this morning the Assistant Secretary of the Navy; Admiral Potter, the Chief of the Bureau of Supplies and Accounts, and his assistants. I rather assume that the Secretary of the Navy and the Assistant Secretary of the Navy would prefer to make whatever statement or statements they desire to make later, in the light of the hearings, rather than at the present time, so we will go ahead this morning with Admiral Potter, Chief of the Bureau of Supplies and Accounts. Perhaps I ought to say in behalf of the committee that we are very much pleased to have Col. Roosevelt, the Assistant Secretary, with us, and that we will be delighted to have him or the Secretary here at any time during the hearings that it is convenient for them to be here.

Col. ROOSEVELT. I thank you, Mr. Chairman.

Mr. OLIVER. I believe you voice the sentiment of the full committee.

COST OF OPERATION AND MAINTENANCE OF VESSELS FISCAL YEARS 1916 AND 1921, AND FIRST QUARTER FISCAL YEAR 1922.

Mr. KELLEY. Now, Admiral Potter, a few preliminary questions relative to the method of keeping abreast of the expenses of the Navy before we go into the details. I have here your annual report for 1921. When was that report published?

Admiral POTTER. That report was published in November; the data was finished and assembled in October, but actually printed in November, 1921. It represents the assembled data for the period ending June 30, 1921.

Mr. KELLEY. That report contains tables showing the cost of maintenance and operation for 1921?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Of every ship in the Navy?

Admiral POTTER. Of every ship in the Navy; yes, sir. It includes some accumulated charges from ships which at the end of the year were no longer in commission, but against which charges had come in since the prior report.

Mr. KELLEY. What method, if any, have you of keeping the Secretary of the Navy advised during the year as to the cost of maintenance and operation of any particular ship or station?

Admiral POTTER. We do not send a regular report in unless it is asked for; we make special reports from time to time to the chiefs of bureaus, if they ask for them, as to any particular ship. Ordinarily such tables as I have prepared here are not prepared in this definite form until toward the end of the year, when we do it in the regular process. As I have said, they are gotten out in October or November.

Mr. KELLEY. Then, generally speaking, unless the Secretary of the Navy asks for it specifically, there is no information conveyed to him at regular periods showing the cost of operation and maintenance of any particular ship?

Admiral POTTER. No, sir; unless the Secretary or some bureau asks for it. You understand, we send a monthly report of charges upon all appropriations to the various bureaus concerned, but not as to ships unless asked for.

Mr. KELLEY. Then the Secretary would know at the end of every month just the state of each particular appropriation?

Admiral POTTER. Yes, sir.

Mr. KELLEY. But he would not know how the expenditures for that month were distributed over the Navy?

Admiral POTTER. Precisely; yes, sir.

Mr. KELLEY. I wondered whether you had ever thought about the advisability of so changing your system of bookkeeping as would give the Secretary at more frequent intervals a bird's-eye view of the expenditures for various ships and shore activities during the year while the money was yet being expended.

Admiral POTTER. It has not been done in the past, yet we have just demonstrated, in preparing this table, that, allowing a sufficient lapse of time for the receipt of the necessary returns, it can be done, and I think it might be a good idea if we should furnish the department with such information at such times as it may be deemed necessary. Of course, if we began to prepare such data in time and in a more regular manner it would not be so difficult as it has been in this instance.

Mr. KELLEY. That is if you took care of it as it came in?

Admiral POTTER. Yes, sir; but such information would, of course, be restricted to the data which had been received. The fact that the activities of the Navy are scattered throughout the world makes it impossible to get returns for any given periods at regular intervals, consequently data for a full quarter would be delayed in the preparation until the receipt of all of the reports of expenditures relating to that quarter. The length of time required for the receipt of this data can only be indefinite.

Mr. KELLEY. If you had that in mind from day to day, at the end of each quarter you could prepare a statement which would reflect

pretty accurately the expense of the previous quarter, at least, and you would not be over three months behind on actual expenditures?

Admiral POTTER. Mr. Reed reminds me that it would also be necessary to have an additional clerical force to do that, unless we worked day and night, as we did this time.

Mr. KELLEY. I appreciate your very fine work in getting up these tables for me. As it is now, the Secretary of the Navy does not know, until some three months after the end of the fiscal year, just what any particular vessel has cost the previous year.

Admiral POTTER. That is correct, sir.

Col. ROOSEVELT. Unless he has inquired.

Mr. KELLEY. Unless he has specifically inquired about it?

Admiral POTTER. Yes.

Mr. KELLEY. Now, a word about the relative costs of last year, 1921, as compared with 1916. In operating the fleet what are the chief items of expense?

Admiral POTTER. Of course, we may say at once fuel, which I regard as the chief item.

Mr. KELLEY. It is getting to be.

Admiral POTTER. But not actually in money value. Of course, the largest value in money is pay of the Navy, enlisted men and officers, that is, the compensation of the personnel.

Mr. KELLEY. That would probably be the chief item, would it not?

Admiral POTTER. It is so far as money value goes by far and away the chief item. Then come provisions, then the fuel, then miscellaneous expenses, which indicate charges on such appropriations as construction and repair and engineering for the maintenance of the ships, as well as miscellaneous equipage.

Mr. KELLEY. Take as an illustration the total expense of the maintenance and operation of one of the active ships, the *Wyoming*, or let us go down a little further and get a newer one, the *Pennsylvania*. The total expense for 1921 was \$2,728,605.81.

Admiral POTTER. Yes, sir; in full commission for 12 months.

Mr. KELLEY. Of that amount, \$1,352,640.32 was for pay?

Admiral POTTER. Yes, sir.

Mr. KELLEY. That would be about half of it, would it not?

Admiral POTTER. Yes; that is right, and a trifle under.

Mr. KELLEY. And the other expenses would be divided among equipage, repairs, stores and food?

Admiral POTTER. Yes, sir; in the issues of stores we have here included the food.

INCREASED PAY OF THE NAVY, 1920.

Mr. KELLEY. My recollection is that we increased the pay of the Navy in 1920.

Admiral POTTER. May 18, 1920.

Mr. KELLEY. About what percentage did we increase the officers' pay?

Admiral POTTER. The officers' pay was increased between 20 and 22 per cent, according to the grade.

Mr. KELLEY. Per cent?

Admiral POTTER. Yes, sir; the enlisted men were increased on an average of 30 per cent.

Mr. KELLEY. So if the personnel remained the same in 1916 as in 1921 the increased cost, due to the increased pay, would be something like 22 per cent for the officers and 30 per cent for the men?

Admiral POTTER. Nearer 45 per cent for the men over the 1916 rate.

Mr. REED. I want to make clear that matter. The 30 per cent increase for the enlisted personnel was over the temporary increase authorized by the act of May 22, 1917, and I should say that the increase over the 1916 figures was between 45 and 50 per cent.

Mr. KELLEY. In 1916 we increased the pay of those going in for the first time but did we raise the whole scale?

Mr. REED. The act of May 22, 1917, provided an increase varying from \$6 to \$15 per month all along the line.

Mr. KELLEY. And then this increase made in 1920 was over those figures?

Mr. REED. Yes.

Mr. KELLEY. So if we are to make a fair comparison between 1916 and 1921, what the admiral says about the officers would be correct but as to the men it should be something like 40 to 50 per cent?

Mr. REED. Yes, sir; around 45 per cent.

Mr. KELLEY. Do you know about what proportion of the expense of the personnel on a ship is pay of the officers?

Admiral POTTER. Not as you phrase it; but I should say that the pay of the officers is about 23 per cent of the whole pay of the Navy.

Mr. KELLEY. And would that hold true as to any particular establishment like a ship?

Admiral POTTER. I would like to verify that.

Mr. REED. I think we can give you definite figures on that and would rather do it than hazard a guess.

Mr. KELLEY. You may work that out and make the correction.

Mr. REED. Yes, sir.

U. S. S. "Texas," first quarter, 1922.

Officers' pay.....	\$62,919.4
Crew pay.....	202,047.3
Total maintenance.....	500,420.2

Percentage of officers' pay to total pay on battleship.....	2
Percentage of officers' pay to total maintenance of battleship.....	1

Mr. KELLEY. Now, as to the pay of the men and officers on the battleship *Pennsylvania*, as I say, it was \$1,352,640.32 in 1921. I imagine I must have taken an unfortunate ship, because she was not in commission very long in 1916.

Mr. REED. No; only for about a month.

Mr. KELLEY. So let us take the *Nevada*. Would that ship furnish a fair comparison?

Mr. REED. The *Nevada* was only in commission four months, sir, and you would have to go up and take either the *Texas* or *New York*.

Mr. KELLEY. Let us take the *Texas*.

Mr. OLIVER. I would suggest that you take the several types of ships—take destroyers, take battleships, and submarines.

Mr. KELLEY. That is what I am going to do; I am going down through the line. Take the *Texas*. The pay of the men was

\$1,064,803.04 in 1921 and in 1916 \$535,538.69. On the basis of the increase and taking an increase of only 40 per cent, how do you explain the increase of practically 100 per cent in the pay of the men?

Admiral POTTER. There is undoubtedly a great increase in the personnel and the complement of the ship; just what that is I do not know. In 1916 I do not know what the complement was.

Mr. KELLEY. It would not be due to the increase in pay?

Admiral POTTER. It would be only partly due to the increase in pay.

Mr. KELLEY. I mean, the whole amount would not be due to that?

Admiral POTTER. No.

Col. ROOSEVELT. It is due to the increase in complement. I can not give you the figures from memory, but I could give them to you approximately. Let us say the *Texas* had a complement at that time of 900; if she had that complement at that time she would have about 1,100 now, or some two hundred and odd more.

Mr. KELLEY. Then, if that is the reason for it we had better get the exact figures from Admiral Coontz.

Col. ROOSEVELT. Yes. As I say, I can not give it to you exactly now, but I can give it to you roughly. Certain entirely new inventions have come into vogue since 1916 which necessitated extra personnel. For example, our fire-control system is entirely new, and all of the men attached to that come under the head of extra personnel; the submarine menaces developed in the last war necessitated a different arrangement of the complement on account of the antisubmarine work; that is another item which has to be added to the situation; our radio work on board ship has increased from practically nil to a very large extent; that is another item that has to be added, and there is a sum total of addition in personnel required in the naval development of the battleship.

Mr. KELLEY. Do you not regard that as a pretty excessive increase, 100 per cent, in the pay of the men and officers on a ship over 1916?

Col. ROOSEVELT. But, you see, you have got to figure, first of all, that you have an increase in pay as indicated by Admiral Potter's statement, and that the proportion of men to officers is lower than the 26 per cent that has been given.

Mr. DAVIS. Would it not be well for the ordinary man, and would he not understand it better, if a record were put in showing the pay of the common seamen and the pay of the other men from that up during the year 1916?

Mr. KELLEY. The pay table in the Navy is a rather complicated thing.

Mr. DAVIS. I mean, put it in dollars and cents instead of percentages.

Mr. KELLEY. Have you the complement for 1916, Admiral Potter?

Admiral POTTER. Nine hundred and fifty-seven was her authorized complement in 1916, and in 1921 the authorized complement 1,309.

Col. ROOSEVELT. Authorized; but that does not mean that that complement was on board.

Admiral POTTER. No, sir; it does not.

Mr. KELLEY. The ships' data for 1921 gives the number on board the *Nevada* as 1,188.

Col. ROOSEVELT. I was pretty close, you see; I said 1,100.

Mr. OLIVER. Col. Roosevelt has indicated in a specific way to whom he attributes the increase, and I would like to ask that in revising his answer he insert the number assigned to these various services which he thinks now carry an additional number of enlisted men and giving the number now carried.

Col. ROOSEVELT. I will be very glad to do that. As a matter of fact, I have that information at the office, but I did not realize that particular point would be raised this morning. I have in my office just exactly the answer to Mr. Oliver's query. I have the number of personnel on a ship in 1916, the number of personnel on board now, and a tabulation of the various new inventions and the modifications of the naval organization which have caused the increase, with the number of men totaled alongside of each.

Mr. FRENCH. You are now referring to those actually on the ship and not to those that would be authorized?

Col. ROOSEVELT. Actually on the ship; yes. No ship, you know, is manned up to what we call its war strength, and my answer will simply indicate the new inventions; after each invention the number of men which that invention requires to operate it, and the sum total of those men will indicate the differential in strength between 1916 and the present time.

Mr. OLIVER. And you will take as your basis for determining that not the recommendations of the General Board for the authorized complement but the actual number of men carried on the ship?

Col. ROOSEVELT. I will be dealing entirely with what is actually on the ship and not with what is strategically considered advisable on the ship.

Mr. KELLEY. Of course, that will include the actual improvements or changes that were made in the fire control, and things of that kind, since 1916?

Col. ROOSEVELT. Yes.

Mr. KELLEY. Of course, that was during the period of the war, when we were not revising the battleships very much.

Col. ROOSEVELT. I will go into that, but I do not think, Mr. Chairman, that I had better go into that in too much detail. I would be lost and get way beyond myself if I attempted to go into fire-control in detail.

Mr. KELLEY. The number on the *Nevada*, as given by Admiral Washington, in April, 1921, was 1,292.

Mr. FRENCH. Does the year 1916 represent a fair year? Although not in the war, we were approaching a war strength to some extent, 20 per cent or 30 per cent, just for the sake of playing safe in view of war conditions.

Col. ROOSEVELT. I would have said no; I would have said that 1916 did not represent a fair year, but that is a particular point I have not investigated myself. However, I have asked, "Is that a good average?" and I have been told yes.

DETAILED COST OF BATTLESHIP FLEET FISCAL YEARS 1916 AND 1921
AND FIRST QUARTER FISCAL YEAR 1922.

Mr. KELLEY. I wish you would put in the record at this point the page of your report for 1921 which gives the detailed cost of the battleship fleet.

Admiral POTTER. Yes, sir.

Mr. KELLEY. Also right below it a similar report from your report of 1916 giving the cost of the battleship fleet in that year.

Admiral POTTER. Yes, sir.

Mr. KELLEY. So that the committee will have these two tables, one below the other.

Admiral POTTER. Yes, sir.

Mr. KELLEY. I think it will be well to have you give both the first and second lines separately, because some of the second line ships in 1921 were first line ships in 1916.

Admiral POTTER. Very well. Would you care to have added to that the first quarter of 1922?

Mr. KELLEY. I will ask you to put that in just a little bit later.

Admiral POTTER. Very well.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
	Total.....	\$30,566,165.62	\$1,130,192.55	\$16,280,562.65	\$17,976,920.82	\$8,556,504.69	\$56,533,425.51				
BATTLESHIPS—FIRST LINE.											
28	Delaware.....	474,005.74	8,567.05	218,521.71	701,094.50	157,785.08	888,879.58	20,000	Apr. 4, 1910	12	12
29	North Dakota.....	186,917.53	2,138.30	86,587.52	296,643.15	69,524.69	339,167.84	20,000	Apr. 11, 1910	12	12
30	Florida.....	506,432.34	8,967.39	274,116.31	788,516.04	91,515.82	880,031.86	21,825	July 15, 1911	12	12
31	Utah.....	474,925.21	8,784.81	233,110.60	716,820.62	82,210.43	799,031.05	21,825	Aug. 31, 1911	12	12
32	Wyoming.....	623,610.66	19,887.45	283,865.13	927,313.24	164,387.76	1,091,701.00	26,000	Sept. 25, 1912	12	12
33	Arkansas.....	586,790.49	8,468.87	301,224.08	896,485.44	148,670.40	1,045,155.84	26,000	Sept. 17, 1912	12	12
34	New York.....	539,749.35	10,320.59	262,614.91	842,684.85	113,676.86	956,361.71	27,000	Apr. 15, 1914	12	12
37	Texas.....	535,638.69	14,186.77	290,388.69	830,114.15	125,330.34	955,444.49	27,000	Mar. 12, 1914	12	12
35	Nevada.....	163,890.84	3,473.64	91,685.26	259,019.74	4,463.23	263,482.97	27,500	Mar. 11, 1916	4	4
36	Oklahoma.....	83,070.81	1,446.37	49,097.95	133,615.13	1,039.22	134,654.35	27,500	May 2, 1916	2	2
38	Pennsylvania.....	21,062.52	70.00	16,518.37	38,260.89	1,554.20	39,805.09	31,400	June 12, 1916	6	6
39	Arizona.....					212.91	212.91	31,400	Building.....		
40	New Mexico.....					204.94	204.94	32,000	do.....		
41	Mississippi.....					204.92	204.92	32,000	do.....		
42	Idaho.....					227.32	227.32	32,000	do.....		
43	Tennessee.....							32,000	do.....		
44	California.....							32,000	do.....		
	Total.....	4,189,566.98	86,261.24	2,127,731.53	6,403,556.75	961,008.12	7,364,564.87				
	Equipage.....						1,841,141.22				
	Total.....						9,205,706.09				

Note:—The figures that appear in italics in the following tables are excess of credits on account of erroneous charges in previous annual reports over charges reported in fiscal year 1921.

No.	Name of vessel.	Accrued pay.	Miscellaneous expense, including provisions and medical stores.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
	Total.	\$99,299,639.58	\$6,763,161.21	\$72,282,941.43	\$178,375,742.22	\$43,678,678.81	\$44,075,749.91	\$296,130,170.94		
BATTLESHIPS—FIVE LINE.										
3026	South Carolina.	469,226.00	41,263.93	251,091.15	761,581.08	51,699.46	51,887.42	865,137.96	16,000	Mar. 1, 1910
3027	Michigan.	459,693.99	13,388.69	240,156.90	713,239.58	39,661.84	94,335.92	847,257.34	16,000	Jan. 4, 1910
3028	Delaware.	1,045,599.45	25,572.18	621,901.58	1,693,043.21	311,402.54	490,302.66	2,494,808.41	20,000	Apr. 4, 1910
3029	North Dakota.	1,045,937.52	27,277.49	634,551.82	1,697,766.83	140,207.26	1,131,304.67	2,779,278.76	21,825	Apr. 11, 1910
3030	Florida.	946,598.01	26,820.02	864,301.34	1,837,699.37	213,549.45	307,037.31	2,418,276.13	21,825	Aug. 31, 1911
3031	Utah.	1,093,989.75	31,896.58	521,785.98	1,647,672.31	776,228.28	541,465.05	2,965,365.64	21,825	Aug. 15, 1911
3032	Wyoming.	1,174,832.01	37,535.90	779,501.32	1,991,949.23	221,690.78	193,544.26	2,407,184.27	26,000	Sept. 17, 1912
3033	Arkansas.	1,102,296.88	41,942.87	790,634.37	1,934,844.12	163,819.81	115,828.65	2,213,992.58	26,000	Sept. 17, 1912
3034	New York.	1,237,333.28	71,268.97	805,744.78	2,114,347.03	578,778.88	298,936.03	2,933,124.36	27,000	Apr. 15, 1914
3035	Texas.	1,064,803.04	42,168.43	767,602.43	1,874,573.90	149,779.88	716,000.98	2,740,354.76	27,000	Mar. 12, 1914
3036	Nevada.	1,051,027.77	37,625.83	710,870.91	1,799,524.51	282,144.94	490,227.13	2,571,896.58	27,500	May 2, 1916
3037	Oklahoma.	1,078,030.58	28,321.90	603,601.51	1,709,953.99	327,536.63	317,391.71	2,354,852.33	31,400	June 12, 1916
3038	Pennsylvania.	1,352,640.32	40,180.59	715,246.74	2,108,057.65	307,140.92	313,397.24	2,728,605.81	31,400	Oct. 17, 1916
3039	Arizona.	1,150,196.09	44,391.74	710,706.91	1,905,294.74	286,824.83	326,178.27	2,518,297.84	31,400	Oct. 17, 1916
3040	New Mexico.	1,432,872.99	70,894.50	743,432.63	2,247,110.12	284,368.73	191,809.54	2,723,288.39	32,000	May 20, 1918
3041	Mississippi.	1,107,893.03	36,537.71	778,735.89	1,923,136.60	219,947.93	673,244.68	2,816,339.21	32,000	Dec. 16, 1917
3042	Idaho.	1,073,607.84	34,074.29	675,496.39	1,783,178.52	102,304.34	91,841.07	1,977,323.93	32,000	Mar. 24, 1919
3043	Tennessee.	1,845,555.59	37,356.59	523,533.38	1,809,983.41	2,919,181.79	81,979.15	4,811,144.35	32,300	June 3, 1920
3044	California.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,300	June 3, 1920
3045	Colorado.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	Aug. 10, 1921
3046	Maryland.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	Aug. 10, 1921
3047	Washington.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3048	West Virginia.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3049	South Dakota.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3050	Indiana.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3051	Montana.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3052	North Carolina.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3053	Iowa.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
3054	Massachusetts.	1,248,604.48	37,356.59	60	1,809,983.41	5,466.26	81,979.15	4,811,144.35	32,600	July 21, 1921
	Total.	19,135,083.03	689,273.76	11,578,884.31	31,403,241.10	7,443,991.48	6,442,965.61	45,290,138.19		

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
BATTLESHIPS—FIRST LINE.										
3026	South Carolina.....	\$172,024.90	\$5,613.82	\$77,238.05	\$254,876.76	\$2,332.32	\$1,676.39	\$259,885.47		
3027	Michigan.....	130,037.00		27,194.52	157,231.52	1,178.92	1,174.86	158,575.30		
3028	Delaware.....	241,296.33		129,493.89	370,790.22	19,798.30	5,952.68	396,511.20		
3029	North Dakota.....	255,166.98		112,400.07	368,863.62	7,720.74	4,594.20	381,168.56		
3030	Florida.....	236,654.46	1,266.57	134,219.61	370,874.07	85,828.97	7,542.54	464,245.58		
3031	Utah.....	239,754.56	1,443.07	50,845.76	292,043.39	20,424.55	11,270.66	323,738.60		
3032	Wyoming.....	267,780.12	13,710.78	174,906.23	456,297.13	\$ 51,125.93	80,035.95	485,207.15		
3033	Arkansas.....	252,176.92	4,138.00	137,827.15	394,442.07	\$ 71,320.10	45,663.39	368,815.36		
3034	New York.....	254,510.76	5,296.65	150,305.02	410,115.43	165,626.41	36,371.13	612,112.97		
3035	Texas.....	255,317.63	4,980.99	124,457.53	384,796.15	14,838.46	100,795.63	500,420.24		
3036	Nevada.....	239,882.51		58,496.45	298,378.96	8,949.32	7,391.96	314,720.24		
3037	Oklahoma.....	220,071.65		214,562.05	443,633.70	14,074.06	11,890.28	469,598.04		
3038	Pennsylvania.....	298,654.40	7,495.55	201,046.18	507,196.43	54,802.42	17,979.93	579,978.78		
3039	Arizona.....	286,425.78	7,440.16	192,946.83	499,812.77	26,500.40	10,271.13	486,584.30		
3040	New Mexico.....	193,934.83	4,898.63	99,967.39	298,790.85	32,887.83	91,389.48	423,068.16		
3041	Mississippi.....	250,726.38	8,961.81	144,826.04	403,914.23	26,587.40	96,953.11	527,454.74		
3042	Idaho.....	248,445.30	198.17	104,061.46	352,724.93	18,914.84	138,392.03	510,031.80		
3043	Tennessee.....	292,580.56	6,138.78	168,390.25	467,106.59	37,896.41	4,394.26	509,389.26		
3044	California.....	191,894.93	2,394.63	87,163.10	281,432.06	435,341.88	50.30	716,824.24	52	40
3045	Colorado.....	213,370.65	4,96.87	97,897.15	315,573.66	953,131.82	1,265.28	1,269,970.76	72	20
3046	Maryland.....		4,96.96		96.86		\$ 4.79	96.86		
3047	Washington.....						\$ 4.79			
3049	South Dakota.....					\$ 255.00		\$ 255.00		
3053	Iowa.....									
	Total.....	4,719,696.64	71,189.90	2,488,183.73	7,279,070.27	1,804,094.02	674,070.40	9,757,234.69		

¹ All battleships, first line, in full commission 92 days unless otherwise shown.² Credit.

1916.

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Total operating expenses.					Full commission.	Commission in reserve.
BATTLESHIPS—SECOND LINE.											
1	Indiana.....					\$12,285.44	\$12,285.44	10,288	Nov. 20, 1895		
2	Massachusetts.....					11,000.36	11,000.36	10,288	June 10, 1896		
3	Oregon.....	\$180,111.97	\$5,090.92	\$84,362.73	\$269,604.62	24,795.54	274,406.16	10,288	July 13, 1897	7	5
4	Iowa.....					24,902.52	24,902.52	11,546	June 16, 1897		
5	Kearse.....	208,948.90	25,007.43	90,346.02	325,292.35	24,902.55	349,208.90	11,520	Feb. 20, 1900	9	
6	Kentucky.....	292,457.53	8,791.25	103,272.69	341,451.27	24,902.55	366,359.82	11,520	Feb. 20, 1900		
7	Illinois.....	84,708.60	5,003.30	36,875.65	127,593.55	24,902.55	152,496.10	11,520	May 13, 1900	12	
8	Alabama.....	165,957.26	1,486.96	50,288.77	217,733.01	24,902.55	242,635.56	11,520	Oct. 16, 1900	1	17
9	Wisconsin.....	172,723.27	10,711.62	89,807.07	273,233.96	24,902.55	298,136.51	11,520	Oct. 16, 1900	5	5
10	Maine.....	135,015.80	1,458.07	61,800.83	198,275.29	24,902.55	223,177.84	11,520	Feb. 4, 1901		
11	Missouri.....	205,849.90	5,818.45	111,633.68	323,103.03	24,902.55	348,005.58	12,500	Dec. 29, 1902		
12	Ohio.....	176,178.81	4,483.62	83,289.61	263,952.04	24,902.55	288,864.59	12,500	Dec. 29, 1902	5	12
13	Virginia.....	407,582.56	8,402.77	201,029.77	631,015.10	24,902.55	655,917.65	12,500	Dec. 29, 1902	4	8
14	Nebraska.....	419,150.47	7,402.58	122,631.62	549,184.67	24,902.55	574,087.22	14,948	May 7, 1906	9	3
15	Georgia.....	326,380.08	5,201.39	122,631.62	454,213.09	24,902.55	479,115.64	14,948	July 1, 1907	11	5
16	New Jersey.....	424,265.16	7,282.21	214,233.14	645,780.51	24,902.55	670,683.06	14,948	Sept. 24, 1906	7	1
17	Rhode Island.....	412,055.26	7,470.54	208,632.04	628,157.84	24,902.55	653,060.39	14,948	May 12, 1906	11	1
18	Connecticut.....	341,377.20	4,605.29	122,312.86	468,295.35	24,902.55	493,197.90	16,000	Feb. 19, 1906	11	1
19	Louisiana.....	480,534.76	9,065.73	274,452.86	764,053.35	24,902.55	788,955.90	16,000	Sept. 29, 1906	11	1
20	Vermont.....	315,050.39	5,135.12	126,780.44	446,965.95	24,902.55	471,868.50	16,000	June 2, 1906	11	1
21	Kansas.....	350,741.46	8,099.07	189,318.54	548,159.07	24,902.55	573,061.62	16,000	Mar. 4, 1907	12	
22	Minnesota.....	355,957.21	6,735.68	142,314.69	505,007.58	24,902.55	529,910.13	16,000	Apr. 18, 1907	12	
23	New Hampshire.....	377,207.88	6,193.49	172,731.42	556,162.79	24,902.55	581,035.34	16,000	Mar. 9, 1907	12	
24	South Carolina.....	423,049.70	8,931.11	174,768.69	606,719.50	24,902.55	631,622.05	16,000	Mar. 19, 1908	12	
25	Michigan.....	441,136.51	9,262.84	188,784.98	639,184.33	24,902.55	664,147.88	16,000	Jan. 4, 1910	12	
Total.....		5,636,500.79	155,318.94	3,065,015.66	9,856,835.39	1,634,791.57	11,491,626.96				
Equipage.....							2,872,906.74				
Total.....							14,364,533.70				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
BATTLESHIPS—SECOND LINE.											
3001	Coast battleship No. 1 (ex-Iowa).										
3002	Coast battleship No. 2 (ex-Massachusetts).			\$659.14	\$659.14	\$108.25	\$45,484.52	\$45,484.52	10,288	Nov. 20, 1895	
3003	Oregon						36,682.41	36,151.52	10,288	June 10, 1896	
3004	Coast battleship No. 4 (ex-Iowa).			946.85	14,726.57		3,772.67	3,772.67	10,288	July 15, 1896	
3006	Kentucky	\$13,769.23	\$10.49	523.27	523.27	3,146.76	118,547.73	133,274.30	11,346	June 16, 1897	
3007	Illinois			204.27	204.27	5,060.87	10,392.07	14,062.10	11,520	May 15, 1900	
3008	Alabama			204.27	204.27	72.28	9,625.39	5,879.29	11,552	Sept. 16, 1901	
3009	Wisconsin		564.80	10,284.75	10,849.55		11,648.32	11,924.87	11,552	Oct. 16, 1901	
3010	Maine			12,854.00	12,854.00		10,664.49	23,421.93	12,500	Feb. 4, 1901	
3011	Missouri			283.47	283.47		21,988.60	23,312.07	12,500	Dec. 29, 1902	
3012	Ohio	340,398.98	16,887.95	186,287.96	542,574.89	1,040.00	61,306.68	644,559.23	12,500	Dec. 1, 1903	12
3013	Virginia	28,085.72	1,712.79	48,756.42	78,554.93	40,677.66	64,446.11	185,071.64	14,948	Oct. 4, 1904	1
3014	Nebraska			4,896.24	4,896.24	1,272.03	20,786.01	17,772.40	14,948	May 7, 1906	
3015	Georgia	5,281.32	983.62	3,127.68	9,392.62	2,688.61	18,862.11	17,772.40	14,948	July 1, 1907	
3016	New Jersey	26,423.01	1,320.97	32,458.85	60,202.83	7,807.67	50,244.19	118,264.69	14,948	Sept. 24, 1906	
3017	Rhode Island			32,554.89	32,488.19	4,046.43	28,236.50	64,771.12	14,948	May 12, 1906	
3018	Connecticut	572,604.29	23,791.33	335,560.82	931,956.44	122,382.72	256,634.94	1,310,974.10	16,000	Sept. 29, 1906	12
3019	Louisiana	67,924.86	6,006.34	40,633.21	114,564.41	3,169.66	85,064.61	202,813.68	16,000	June 2, 1906	
3020	Vermont			1,720.77	1,720.77	997.48	25,413.79	26,227.08	16,000	Mar. 4, 1907	
3021	Kansas	605,704.22	33,708.46	396,782.00	1,096,194.68	56,142.95	93,160.44	1,245,498.07	16,000	Apr. 18, 1907	12
3022	Minnesota	671,795.41	22,316.92	415,253.04	1,109,370.37	55,572.70	90,873.21	1,255,816.28	16,000	Mar. 9, 1907	12
3025	New Hampshire	551,670.30	23,319.49	342,121.39	917,111.18	64,200.90	73,845.00	1,055,157.08	16,000	Mar. 19, 1908	11
	Total	2,943,657.34	129,776.46	1,855,467.53	4,928,901.33	394,667.69	1,149,562.09	6,473,131.11			

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
	BATTLESHIPS—SECOND LINE.									
3001	Coast Battleship No. 1 (ex-Indiana)						121.12	121.12		
3002	Coast Battleship No. 2 (ex-Massachusetts)						50.17	50.17		
3003	Oregon						6.20	6.20		
3004	Coast Battleship No. 4 (ex-Iowa)	10,565.90	5.70		10,571.60		4,397.12	14,968.72		
3005	Illinois					44.17	19,495.60	19,539.77		
3006	Alabama					136.97	2,919.21	3,066.18		
3007	Wisconsin					\$ 245.83	180.22	\$ 65.61		
3008	Maine					44.17	3,423.00	3,467.17		
3009	Missouri					145.00	1,061.70	1,206.70		
3010	Ohio	81,926.76		45,922.33	127,619.09	16,339.78	3,616.02	147,574.89	92	
3011	Virginia						10,210.98	10,210.98		
3012	Nebraska						1,087.54	1,087.54		
3013	Georgia						96.14	96.14		
3014	New Jersey						8,505.96	8,505.96		
3015	Rhode Island						443.92	443.92		
3016	Connecticut	191,894.72	5,265.79	71,234.41	268,334.92	2,785.42	9,520.52	280,640.86	92	
3017	Louisiana					62.08	\$ 26,709.61	\$ 26,617.83		
3018	Vermont					215.73	343.24	558.97		
3019	Kansas	184,160.94	4,800.52	64,702.68	253,670.14	467.07	2,485.73	256,622.94	92	
3020	Minnesota	188,012.02		96,335.66	284,347.68	1,331.20	2,068.50	287,767.28	92	
3021	New Hampshire		650.36		650.36	1,362.07	2,353.83	3,366.26		
3022	Total	656,500.34	10,728.37	277,964.98	954,193.69	21,747.83	46,711.11	1,013,632.63		

¹ All battleships, second line, out of commission 92 days unless otherwise shown.
² Credit.

Mr. KELLEY. Mr. Oliver, have you any questions to ask relative to the situation between 1916 and 1921 before we take up the first quarter of this year?

Mr. OLIVER. No; I think you have exhausted that.

Mr. KELLEY. Now, Admiral, you have prepared for the committee—and we are very much indebted to you for it and to the Navy Department—a table showing similar items of expense for the ship of the Navy during the first quarter of 1922.

Col. ROOSEVELT. Might I add that perhaps that is not a fair comparison for the Navy in so far as the second and third quarters go on account of certain expenses that arise in the first quarter, which I would be delighted to explain to the committee if they so desire.

Mr. KELLEY. When we develop this we will see what we have and then hear your statement. I think it would be well to have you put in at this point a table for the battleships of the first and second line.

Mr. REED. Right with the other two?

Mr. KELLEY. Yes.

Mr. REED. We will do that.

BATTLESHIPS OF THE FIRST LINE—MAINTENANCE AND OPERATION COST, FIRST QUARTER, 1922.

Mr. KELLEY. What do you get as the total battleship maintenance and operation cost for the first quarter?

Admiral POTTER. For the first line?

Mr. KELLEY. Yes.

Admiral POTTER. \$9,757,234.69.

Mr. KELLEY. Assuming that to be a fair quarter of the year—then we will consider later on whether or not it is a fair quarter—what would that make the battleship fleet cost, the active line, for the year?

Admiral POTTER. For the year it would be about \$38,000,000 and \$39,000,000; four times that.

Mr. KELLEY. In round numbers, \$39,000,000?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What was the total in 1921 for these same ships?

Admiral POTTER. In 1921, \$45,290,138.19.

Mr. KELLEY. So the cost of operation of these ships this year has been reduced by approximately \$6,000,000?

Admiral POTTER. Yes, sir.

Mr. REED. On the basis of the first quarter's figures, but there is question that would have to be developed as to what ships had been able, for instance, to get in their overhaul periods and repair work. As to the battleship class there was quite an amount for repairs.

Admiral POTTER. You mean as to the justice of the comparison?

Mr. REED. Yes; as to whether a proportionate part of them had gotten in their overhaul period at the navy yards.

Mr. KELLEY. Taking any one ship, of course, it would depend altogether on whether it had gone to a yard to be repaired?

Admiral POTTER. Yes, sir.

Mr. KELLEY. But if we take the list as a whole, would it be fair period?

Mr. REED. As to the battleship fleet I am not prepared to say, but my recollection is that the three summer months are their active

cruising period; that is, they do some overhauling in the fourth quarter getting ready for the cruise, and there is a relatively smaller number at the yards during July, August, and September than during any other months of the year. However, Admiral Coontz would have to develop that.

Col. ROOSEVELT. That is substantially true; they are more apt to overhaul in June, after coming back from their winter cruise.

Mr. KELLEY. You spent \$500,420.24 on the *Texas*?

Admiral POTTER. Yes, sir; \$100,795.63 for alterations and repairs for the first quarter.

Mr. KELLEY. And \$80,035 on the *Wyoming*?

Admiral POTTER. Yes, sir; and on the *Idaho* \$138,392.03 for repairs and alterations.

Mr. KELLEY. Undoubtedly each ship has spent her full amount?

Admiral POTTER. Yes, sir.

Mr. FRENCH. Is that for 1922?

Admiral POTTER. Yes, sir; July, August, and September.

Col. ROOSEVELT. There was something to do with the ranges on the *Idaho*; I can not tell you.

Mr. KELLEY. \$96,000 and upward on the *Mississippi*?

Admiral POTTER. Yes, sir; \$96,953 on the *Mississippi*, and on the *New Mexico* \$91,389.

Mr. KELLEY. It has been my understanding always that the Navy Department attempts to apportion this along evenly during the year in order that the navy yard employees shall not have an excess of work at one time and a shortage of work at another. That is the policy that is being pursued?

Admiral POTTER. So far as I understand.

Mr. KELLEY. If it were pursued the repair item would be fairly uniform during the year?

Admiral POTTER. With the exception of the third quarter.

Mr. KELLEY. You would not have the navy yards idle during the third quarter?

Admiral POTTER. No, sir. The fleet takes its biggest cruise in January, February, March, and part of April, and that quarter would likely run smaller than the other three quarters. The first quarter they have the in and out cruises, but the third quarter, January, February, and March, and extending into April, is a cruise of several thousand miles.

Col. ROOSEVELT. The two most uneven quarters are the third and fourth; the fourth would show more and the third less. The other two quarters, the first and second, I believe, will come more closely to the average quarter.

Mr. KELLEY. What was the repair bill on the *Texas* in 1916?

Admiral POTTER. For repairs and alterations, \$125,330.34.

Mr. KELLEY. That was for the entire year?

Admiral POTTER. For 12 months in full commission.

Mr. KELLEY. The chances are that the repairs on the *Texas* for the rest of the year you would not have?

Admiral POTTER. Not here.

Mr. REED. The repairs at that time ought to have been apparently pretty low, because she had only been in commission two years or less. She was put in commission in the late spring of 1914.

Admiral POTTER. Do you wish that compared with 1922 or 1921 ~~was~~

Mr. KELLEY. What was it in 1921?

Admiral POTTER. \$716,000.98.

Mr. KELLEY. And for repairs for this quarter?

Admiral POTTER. \$100,795.

Mr. OLIVER. Will an examination by the past quarters be able to give us a representative average in type of ship, to which you can give answers to questions propounded?

Admiral POTTER. I think the one he has taken is a thorough representative type. It has not been long enough in commission to have had time to deteriorate much on account of age.

Mr. KELLEY. How could you spend \$700,000, under the law, for repairs to a ship in one year?

Admiral POTTER. Authority must have been given by the Navy Department for such expenditures.

Mr. REED. The limit was lifted until the 30th of June, 1920.

Mr. OLIVER. That answer rather suggests the inaccuracy of the information which we have had that it is always cheaper to keep a ship in active commission.

Mr. KELLEY. I was under the impression that there was a legal limit to the repairs.

Mr. REED. The limit was \$300,000. That was suspended during the period of the war.

Mr. KELLEY. There was no limit during that period?

Mr. REED. No, sir—up to June 30, 1920.

Mr. KELLEY. That limit is again in operation?

Mr. REED. Yes, sir.

Mr. KELLEY. The largest amount which you can spend on one of the ships during the coming year is \$300,000, although you spent \$700,000 on this particular ship last year?

Mr. REED. Yes, sir.

COST OF RATIONS 1916-1921.

Mr. KELLEY. What was the average ration in 1916?

Admiral POTTER. The average ration in 1916 was \$0.3714—nearly 38 cents.

Mr. KELLEY. Let us call it 38 cents in round numbers.

Admiral POTTER. Yes, sir.

Mr. KELLEY. What was the average in 1921?

Admiral POTTER. The average in 1921 was \$0.6846—say 68½ cents.

Mr. KELLEY. And for the first three months of 1922?

Admiral POTTER. \$0.6423.

Mr. KELLEY. What is the cost right now—the last purchases?

Admiral POTTER. \$0.5656—almost 57 cents.

Mr. KELLEY. That is the average on all the ships?

Admiral POTTER. That is the average on all the ships. This time we took the actual number of rations, not only by types of ships, but the actual number of rations, and worked them out.

Mr. KELLEY. The average is increased in proportion as the ships are scattered and have no purchasing officers aboard?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Do you know what the cost of the ration is on any particular type of ship?

Admiral POTTER. Yes, sir; the torpedo-boat destroyers, those without supply officers, are running—at present, you mean?

Mr. KELLEY. Yes, sir.

Admiral POTTER. Those without supply officers, roughly speaking, are the destroyers and similar vessels, and they are running \$0.6977—practically 70 cents.

Mr. KELLEY. Those are the destroyers?

Admiral POTTER. Yes, sir; and similar vessels almost 70 cents. Vessels on which there are supply officers for the same period are running \$0.4940, practically 49½ cents. Of course, it is possible to live more cheaply upon large vessels than small ones; where you have 1,400 men you can live at a cheaper rate than where you have only 115 men.

Mr. KELLEY. The item of "stores issued" includes more than food?

Mr. REED. That actually includes all supplies—fuel, lubricating oil, miscellaneous cleaning gear, and engine-room supplies—as well as provisions and medical stores.

Mr. KELLEY. Please put in the record at this point a percentage table, taking the *Texas* as a model, showing the various percentages that make up the 100 per cent expense of operating that ship for pay, food, fuel, repairs, and other items, miscellaneous.

Admiral POTTER. Yes, sir.

Mr. KELLEY. So that we can differentiate those and see how the new prices will compare for the similar expenditures during the coming year.

U. S. S. "Texas," maintenance and operation, fiscal year 1921.

	Amount.	Per cent of total.
Pay.....	\$1,064,803.04	39
Provisions.....	250,468.83	9
Fuel.....	245,941.06	9
Other stores issued.....	271,192.54	10
Miscellaneous expenses.....	42,168.43	2
Equipment.....	149,779.88	5
Repairs and alterations to ship, including equipage.....	716,000.98	26
Total.....	2,740,354.76	100

Mr. REED. Those percentage items vary with every ship.

Mr. KELLEY. But you can tell pretty well.

What officer should we interrogate relative to ships put in commission in 1916 of any particular class; perhaps, Admiral Washington?

Admiral POTTER. Admiral Coontz.

ARMORED CRUISERS.

Mr. KELLEY. Taking up the armored cruisers, I see here the armored cruiser *Frederick*—

Admiral POTTER (interposing). That was the armored cruiser *Maryland*.

Mr. KELLEY. She is in commission?

Admiral POTTER. Yes, sir; but she was not in 1916.

Mr. REED. The *Pittsburgh* is the only one that carries through.

Mr. KELLEY. These old ships have been resurrected since 1916.

Col. ROOSEVELT. Most of them are out of commission now. The one in commission is the *Rochester*.

Mr. KELLEY. The armored cruisers, practically all of them you say were out of commission in 1916?

Admiral POTTER. The *Montana* and *North Carolina* were in full commission, but they are not now. It is very difficult to get a comparison. They were the only two in full commission in 1916, and neither of them is now.

Mr. KELLEY. Suppose we take one of the ships that was in commission in 1916 and compare that with one that was in commission in 1921, which would be fairly comparable?

Admiral POTTER. Take the *Montana* or *North Carolina* in 1916.

Mr. KELLEY. Very well.

Mr. REED. The *Pittsburgh* is the only one in commission during the two years.

Admiral POTTER. She was not in commission in 1916. You will have to compare one ship with a similar ship. Take the *North Carolina*.

Mr. KELLEY. What did she cost for operation and maintenance in 1916?

Admiral POTTER. The total maintenance and operation was \$433,026.66.

Mr. KELLEY. What ship was in commission which would be fairly comparable with the *North Carolina*, the *Frederick*?

Admiral POTTER. The *Frederick* is the same type. She was in commission 92 days. Take the *Frederick* for 1921, the total maintenance and operation was \$1,213,957.60.

Mr. KELLEY. Is that about three times the 1916 ship?

Mr. REED. Yes, sir; about three times.

Admiral POTTER. That was a different vessel. We can give you the *Frederick's* figures for the first quarter.

Mr. KELLEY. The *Ferderick* now was the *Maryland* taken over?

Admiral POTTER. Yes, sir. She was only in commission 19 days in 1916, commission and reserve, not in active commission. That is a type of vessel that is very difficult to get any comparison with because it has been changed since.

Mr. KELLEY. The *Pittsburgh*—how long was she in commission in 1916?

Admiral POTTER. Five months.

Mr. KELLEY. A little less than half a year?

Admiral POTTER. Yes, sir; she was only in reserve.

Mr. KELLEY. Not in full commission?

Admiral POTTER. No, sir.

Mr. KELLEY. What was the cost of the *Pittsburgh* last year—1921?

Admiral POTTER. \$1,777,931.02.

Mr. KELLEY. What has been the cost of the *Pittsburgh* for the first three months of this year?

Admiral POTTER. \$229,454.53.

Mr. KELLEY. If that holds for the year, it will be about \$1,000,000?

Admiral POTTER. Yes, sir.

Mr. OLIVER. Will the table show the complement of that ship?

Admiral POTTER. Yes, sir; we can get it for 1921.

Col. ROOSEVELT. The *Pittsburgh* is out of commission now. She is at the Philadelphia Navy Yard and out of commission. She is the *Huron*. We put her out of commission in November or December.

Mr. KELLEY. Have you the *South Dakota* for 1916?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Was that ship in full commission all the time in 1916?

Mr. REED. She was in commission and reserve the full year.

Mr. KELLEY. Is she in full commission now?

Col. ROOSEVELT. She is in full commission.

Mr. KELLEY. She was in reserve commission in 1916?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What was the expense that year?

Admiral POTTER. \$321,639.43.

Mr. KELLEY. What was the cost to operate her last year, 1921?

Admiral POTTER. \$947,231.57.

Mr. KELLEY. Have you the date when that ship was built?

Admiral POTTER. No, sir. I have the first commission, January 27, 1908.

Mr. KELLEY. Will you insert in the record at this point the table for 1916 and 1921 and for the first quarter for armored cruisers?

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
	ARMORED CRUISERS.										
126	Colorado.....	\$259,476.10	\$5,470.08	\$134,312.44	\$399,258.62	\$121,942.45	\$521,201.07	13,680	Jan. 19, 1905	3	2
127	Maryland.....	300,128.29	6,583.24	221,769.44	528,480.97	59,715.01	588,195.98	13,680	Apr. 18, 1905		19
133	Memphis.....	300,790.39	8,618.33	280,385.00	589,793.72	118,678.29	708,472.01	14,500	July 17, 1906		
131	Montana.....	312,551.34	2,931.73	142,734.95	458,218.02	71,593.93	529,811.95	14,500	July 21, 1908	12	
132	North Carolina.....	242,864.17	6,566.97	124,053.20	373,484.34	59,542.32	433,026.66	14,500	May 7, 1908	12	
128	Pittsburgh.....	120,033.95	4,741.30	83,079.74	207,854.90	19,474.54	227,329.53	13,680	Mar. 9, 1905		5
125	San Diego.....	447,152.70	8,141.30	272,016.86	727,310.86	36,043.08	763,353.94	13,680	Aug. 1, 1907	3	9
129	South Dakota.....	126,812.66	6,739.26	147,746.76	281,301.68	40,337.75	321,639.43	13,680	Jan. 27, 1908		12
134	Washington.....	379,980.02	6,832.34	114,016.02	500,837.38	124,856.89	625,694.27	14,500	Aug. 7, 1906	9	3
130	West Virginia.....	131,538.32	2,173.35	71,840.03	205,551.70	206,002.54	411,554.24	13,680	Feb. 23, 1905		12
	Total.....	2,621,336.94	58,797.90	1,591,958.44	4,272,063.28	858,186.80	6,130,280.08				
	Equipage.....						1,282,570.02				
	Grand total.....						6,412,850.10				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and commuted rations.	Stores issued, including provisions and medical stores.							
ARMORED CRUISERS.											
3408	Frederick	\$494,733.55	\$32,989.31	\$359,055.33	\$896,778.19	\$89,246.15	\$237,933.26	\$1,213,957.60	13,690	Apr. 18, 1905	12
3409	Huntington	27,948.71	2,298.40	24,734.00	53,981.20	27,985.10	46,175.14	127,121.44	13,690	Feb. 23, 1905	2
3412	Charlotte (ex-North Carolina)	156,325.53	7,154.15	79,577.13	243,006.81	6,106.30	16,013.26	265,126.37	14,500	May 7, 1908	7
3409	Huron (ex-South Dakota)	650,597.68	72,065.93	141,873.98	864,537.59	58,864.98	23,829.00	947,231.57	13,690	Jan. 27, 1908	.....
3410	Memphis	.....	.....	5.95	5.95	.....	.....	270.15	14,500	July 17, 1908	.....
3413	Missoula (ex-Montana)	118,907.50	5,522.70	61,441.03	185,871.23	13,352.97	60,652.27	259,876.47	14,500	July 21, 1908	7
3404	Pittsburgh	1,072,326.76	50,554.43	561,964.62	1,684,875.81	63,577.42	29,477.79	1,777,931.02	13,690	May 9, 1905	.....
3407	Pueblo	50,697.54	173.57	15,037.85	65,908.96	571,852.73	126,883.96	1,777,645.65	13,690	Jan. 19, 1905	12
3406	San Diego	.....	130.00	1,320.00	1,450.00	.....	.....	1,727.30	13,690	Aug. 1, 1907	2
3411	Seattle	179,755.60	9,601.49	86,287.75	275,644.84	.....	79,188.15	355,451.05	14,500	Aug. 17, 1906	7
	Total	2,751,302.87	179,490.07	1,331,287.64	4,261,960.58	831,947.91	619,430.13	5,713,338.62	.....	.....	.....

1922.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
ARMORED CRUISERS.										
3408	Frederick.....	\$128,870.50	\$442.63	\$52,646.02	\$181,959.15	\$15,940.30	\$1,628.71	\$199,528.16		
3409	Huntington.....						2,200.32	2,200.32		
3412	Charlotte (ex North Carolina).....						5,325.43	5,325.43		
3409	Huron (ex South Dakota).....	211,048.33	46.18	91,305.03	302,399.54	8,642.15	4,962.35	316,004.04		
3413	Missoula (ex Montana).....						297.42	720.99		
3404	Pittsburgh.....	173,394.32	1,208.48	53,838.73	228,439.53	1,025.38	\$ 10.38	229,454.53		
3407	Pueblo.....			140.14	140.14	75.00	5,449.66	5,684.80		
3411	Seattle.....						4,654.66	4,654.66		
	Total.....	512,313.15	1,697.29	197,927.92	712,938.36	26,106.40	24,508.17	763,552.93		

¹ All cruisers in full commission for 92 days except as shown otherwise.² Credit.

Mr. OLIVER. I think wherever the chairman has asked with reference to any particular vessel that you should have given a comparative statement showing the complement carried by the vessel.

Col. ROOSEVELT. I should think that would be very helpful.

Mr. REED. You want the authorized or the actual complement in 1916 and 1921 and the first three months?

Mr. OLIVER. The actual complement.

Mr. KELLEY. That is not to include the marines.

Mr. REED. The commissioned personnel and the enlisted personnel? (The complements will be shown in the tables to be submitted by Admiral Coontz.)

Mr. KELLEY. Yes, sir; exclusive of the marines. In the list of cruisers of the first class, the *Brooklyn*, I imagine was in commission in 1916 for 12 months?

Admiral POTTER. Yes, sir; that is correct, but only eight months in 1921.

Mr. KELLEY. What did the *Brooklyn* expend in 1916?

Admiral POTTER. The total maintenance and repair amounted to \$632,651.08.

Mr. KELLEY. And for the eight months in 1921?

Admiral POTTER. \$790,762.12.

Col. ROOSEVELT. At the rate of \$1,080,000 for the year.

Mr. KELLEY. Based on the year?

Col. ROOSEVELT. Yes, sir.

Mr. KELLEY. Take the *Charleston*—what was that in 1916?

Admiral POTTER. That was in reserve during the whole year 1916, 12 months in reserve.

Mr. KELLEY. Was that a situation where they had a 50 per cent complement?

Mr. REED. Even less than that.

Mr. KELLEY. How much did you spend on her then?

Admiral POTTER. \$194,846.98.

Mr. KELLEY. How much did you spend on her in 1921?

Admiral POTTER. \$1,112,910.64 in full commission.

Mr. KELLEY. Was she in full commission for the full time?

Admiral POTTER. Yes, sir.

Mr. KELLEY. How about the first three months of 1922?

Admiral POTTER. As to the *Brooklyn*, we sold the *Brooklyn*. The *Charleston*, \$247,186.43.

Mr. KELLEY. If that rate holds good for the year it will cost about as much as last year?

Admiral POTTER. \$968,000.

Mr. KELLEY. A little less, quite a little bit?

Admiral POTTER. Yes, sir.

Mr. KELLEY. We can figure those out as we go along, and the complement?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Take the *Saratoga*?

Admiral POTTER. The *Saratoga* was in full commission for eight months in 1916 and four months in reserve. There was spent on her \$396,821.97.

Mr. KELLEY. How much for 1921?

Admiral POTTER. She was in full commission, \$1,154,872.29.

Mr. KELLEY. When was this ship put in commission first?

Admiral POTTER. August 1, 1893. She was the old *New York*.

Mr. KELLEY. What will you spend on her during the first three months?

Admiral POTTER. \$209,501.43. That would amount during the year to \$836,000, if at the same rate.

Mr. KELLEY. What was the amount of the repairs on her in 1921?

Admiral POTTER. The repairs alone in 1921 were \$83,193.21.

Mr. KELLEY. How much have you spent for repairs on her this year during the first three months?

Admiral POTTER. \$7,597.01.

Mr. KELLEY. You are not spending very much on repairs?

Admiral POTTER. No, sir.

CRUISERS—FIRST CLASS.

Mr. KELLEY. You will put in the list of cruisers of the first class for the three periods that we are considering?

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Total operating expenses.					Full commission.	Commission in reserve.
CRUISERS—FIRST CLASS.											
121	Brooklyn.....	357,649.91	15,297.53	183,973.56	556,926.00	75,725.08	632,651.08	9,215	Dec. 1, 1896	12	.....
122	Charleston.....	117,815.79	3,105.24	59,407.44	180,328.47	14,518.51	194,846.98	9,700	Oct. 17, 1906	.....	12
123	Milwaukee.....	173,328.52	4,376.13	116,968.02	294,572.67	7,632.57	302,196.24	9,700	May 11, 1906	.....	12
120	Saratoga.....	274,565.27	9,650.78	92,692.23	376,928.28	19,863.69	396,821.97	8,150	Aug. 1, 1893	8	4
124	St. Louis.....	127,157.35	5,042.32	74,646.87	206,846.54	58,704.04	265,550.58	9,700	Aug. 18, 1906	.....	12
	Total.....	1,050,536.84	37,472.00	527,893.12	1,615,601.96	176,464.89	1,792,066.85				
	Equipage.....						448,016.71				
	Total.....						2,240,083.56				

1921.

No.	Name of vessel.	Title C.				Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.								
CRUISERS—FIRST CLASS.												
3553	Brooklyn.....	551,010.09	24,049.28	105,166.43	680,225.80	18,149.04	92,377.28	790,762.12	9,215	Dec. 1, 1906	8	
3572	Charleston.....	503,490.58	29,035.94	243,356.73	775,873.25	52,638.75	284,396.64	1,112,910.64	9,700	Oct. 17, 1906	12	
3571	Milwaukee.....	561,840.06	21,102.96	236,055.64	819,334.07	252,948.01	83,612.91	2,632.86	9,700	May 11, 1906	.....
3552	Rochester (ex-Saratoga).....	583,834.61	36,365.42	222,062.87	762,252.90	47,378.64	57,145.51	1,154,872.29	8,150	Aug. 1, 1893	12	
3570	St. Louis.....							886,777.05	9,700	Aug. 18, 1906	10	
	Total.....	2,150,165.34	110,991.97	806,631.67	3,067,788.98	373,428.42	517,727.55	3,967,944.96				

1923.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
CRUISERS—FIRST CLASS.										
3553	Brooklyn.....						\$722.22	\$722.22		92
3572	Charleston.....	\$163,663.58	\$6,560.25	\$64,108.54	\$236,332.37	\$8,643.62	2,210.44	247,107.43		92
3571	Milwaukee.....						37.10	37.10		
3552	Rochester (ex-Saratoga).....	142,287.41	7,671.07	46,058.69	195,997.17	5,907.25	7,597.01	209,591.43		92
3570	St. Louis.....	130,635.86	3,403.72	36,385.16	169,824.74	9,467.53	5,102.10	184,394.37		
	Total.....	435,986.85	19,635.04	146,552.39	602,154.28	24,018.40	15,668.57	641,641.55		

¹ All cruisers—first class—in commission 92 days unless otherwise shown.

CRUISERS—SECOND CLASS.

Mr. KELLEY. Cruisers of the second class; what about the *Olympia* in 1916?

Admiral POTTER. The *Olympia* was not in commission at all; she was entirely out.

Mr. KELLEY. How much did we spend on her?

Admiral POTTER. \$80,056.07.

Mr. KELLEY. How much in 1921?

Admiral POTTER. In 1921, 12 months' commission, \$1,179,800.66.

Mr. KELLEY. When was she first put into commission?

Admiral POTTER. She was first put into commission February 5, 1895.

Mr. KELLEY. How much was expended on her during the first three months of this year?

Admiral POTTER. \$163,338.28.

Mr. KELLEY. How much did her repairs amount to during this quarter?

Admiral POTTER. This quarter's repairs amounted to \$4,382.39.

Mr. KELLEY. What did they amount to last year?

Admiral POTTER. \$21,244.07.

Mr. DAVIS. What is the general nature of those repairs?

Admiral POTTER. All sorts of odds and ends. The steelwork, for instance, may get chipped and possibly cracked, and have to be repaired. We may have to take a piece of angle iron out and renew it. On the other hand, there may be just some woodwork to be repaired about the ship, or a plate may get bent in contact with another ship, and that would have to be straightened out. It consists of all sorts of general mechanical and carpenter work, including machinery repairs, also.

Mr. KELLEY. What about the *Columbia* in 1916?

Admiral POTTER. In 1916 the *Columbia* was in full commission and her total expenses were \$382,433.69.

Mr. KELLEY. How much were they for 1921?

Admiral POTTER. In 1921 she was for 11 months in full commission, and her expenses were \$950,571.52.

Mr. KELLEY. When was she first put into commission?

Admiral POTTER. On August 23, 1894.

Mr. KELLEY. You have disposed of her now, have you not?

Admiral POTTER. Yes, sir.

Mr. KELLEY. There is a *Columbia*, but not this one?

Admiral POTTER. There was one.

Mr. KELLEY. You may insert your table covering cruisers of the second class at this point.

Admiral POTTER. I will do so.

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

1916.

of vessel	Accrued pay	Public vouchers (including pay committed future)	Stores issued (including provisions and medical stores)	Total operating expense	Repair and alterations to ships included in equipment	Total maintenance and operation	Tonnage	Date of first commission	Full commission in reserve	Months in commission
USSR-1000	846,156 41	846,172	839,409 06	845,010 25	84,392 32	843,392 57	4,300	Apr. 17, 1899	12	12
	240,265 20	8,441 91	92,183 71	225,960 92	56,572 97	392,433 69	7,350	Apr. 23, 1894	12	12
		45 00	120 38	165 38	4,974 78	4,974 78	7,350	Dec. 13, 1894		
					79,491 32	80,056 70	5,465	Feb. 5, 1895		
Total	276,412 61	8,934 63	130,713 15	411,036 45	149,921 29	560,957 74				
Equipment						140,214 44				
Grand total						701,072 18				

1921.

Major of vessel.	Title.	Accrued pay	Miscellaneous expense, including comm and grat	Stops board, including provisions and medical stores.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including outfitage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
Albatross	Master	\$4,400,000.43	\$241,226.71	\$54,100.20	\$307,127.43	\$26,787.49	\$88,583.22	\$625,508.14	\$,500	Aug. 17, 1890	12
Albatross	Master	\$77,204.07	\$6,229.03	\$24,401.04	\$65,606.04	44,004.75	100,840.73	\$50,571.62	1,350	Aug. 23, 1894	11
Albatross	Master	\$67,640.42	\$11,766.76	\$16,853.50	\$85,366.77	3,566.76	13,000.46	402,033.02	1,350	Dec. 13, 1894	8
Albatross	Master	\$24,100.02	\$6,000.00	\$40,853.14	\$1,131,893.05	26,673.54	21,244.07	1,170,803.66	\$,805	Feb. 5, 1895	12
						1,777.00		1,777.00	7,100		
Total		\$1,800,241.74	\$106,226.19	\$54,378.46	\$2,630,046.20	\$105,870.54	\$223,764.51	\$3,150,600.34			

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
	CRUISERS—SECOND CLASS.									
3551	Chicago.....	\$104,755.12		\$255.60	\$105,010.72	\$5,039.52	\$15,098.09	\$125,148.33	92	92
3562	Columbia.....		\$19.48		19.48	452.61	3,317.34	3,789.43		92
3563	Minneapolis.....						4,611.37	4,611.37		92
3556	Olympia.....	114,651.36		39,900.07	154,551.43	4,404.46	4,382.39	153,338.28	92	92
3504	Omaha.....					4,446.53	535.66	4,982.19		92
	Total.....	219,406.48	19.48	40,155.67	259,581.63	14,343.12	27,944.85	301,869.60		

CRUISERS OF THIRD CLASS.

Mr. KELLEY. We will now take up cruisers of the third class.

Admiral POTTER. The Birmingham was in full commission for 12 months in 1916, and her expenses were \$404,608.82. In 1921 she was also in full commission, and her expenses were \$869,502.95. For the first quarter of 1922 her expenses have been \$162,230.72.

Mr. KELLEY. How much have her repairs amounted to?

Admiral POTTER. Her repairs for this quarter, in the fiscal year 1922, have been \$32,897.19. Going back to 1921, her repairs were \$93,505.35, and in 1916 her repairs amounted to \$60,147.27. She was put into commission on April 11, 1908.

Mr. KELLEY. Do you know how many men these cruisers of the third class call for?

Admiral POTTER. I should say about 400 men.

Mr. KELLEY. You will have full complements inserted, all the way down?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You may supply a statement showing the actual number on a definite date, say on July 1, 1921, and the actual number at the present time.

Admiral POTTER. Yes, sir.

Mr. KELLEY. Now, we will take the *Galveston*.

Admiral POTTER. The *Galveston* was in full commission in 1916, and the total amount spent on her was \$236,232.10. In 1921 she was also in full commission, and the total expense was \$785,777.19.

Mr. KELLEY. That is a very heavy increase.

Admiral POTTER. For the first quarter of 1922 her expense was \$186,111.19.

Mr. KELLEY. How much did the repairs amount to?

Admiral POTTER. The repairs for the first three months of 1922 amounted to \$71,231.90, for 1921 they amounted to \$80,358.94, and for 1916 they amounted to \$12,890.71. She was first commissioned on February 15, 1905.

Mr. KELLEY. At this point you can put in the tables covering the third-class cruisers.

Admiral POTTER. I will do so.

No.	Name of vessel.	Title C.		Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Months in commission.	
		Accrued pay.	Public voucher (including commuted rations).					Full commission.	Commission in reserve.
CRUISERS—THIRD CLASS.									
111	Albany.....	\$84,680.45	\$1,035.48	\$126,163.12	\$24,409.76	\$160,572.88	3,430	May 29, 1900	2
112	Birmingham.....	242,331.27	2,169.11	344,461.55	60,147.27	404,608.82	3,750	Apr. 11, 1908	12
102	Boston.....	8,746.06	1,994.09	10,924.17	138.00	11,062.17	3,000	May 2, 1887	12
105	Charlton.....	148,152.48	3,764.58	233,251.67	37,954.94	271,206.61	3,200	Oct. 11, 1904	10
103	Chester.....	192,024.15	6,463.96	402,935.99	8,881.11	411,817.10	3,750	Apr. 25, 1908	12
103	Cincinnati.....	154,691.27	7,830.46	232,485.62	23,031.50	255,517.12	3,183	June 16, 1894	12
106	Cleveland.....	155,783.15	4,417.60	235,218.53	56,045.15	291,263.68	3,200	Nov. 2, 1903	12
107	Denver.....	168,243.07	3,404.70	244,545.69	28,227.01	272,772.70	3,200	May 17, 1904	12
108	Des Moines.....	160,893.72	4,443.93	256,696.95	601.41	257,298.36	3,200	Mar. 5, 1904	12
109	Galveston.....	125,232.61	3,559.83	223,341.39	12,890.71	236,232.10	3,200	Feb. 15, 1905	12
100	Marblehead.....	47,347.26	1,170.03	65,234.35	26,320.28	91,554.63	2,072	Apr. 2, 1894	12
101	Montgomery.....	138,790.14	138.70	21,130.58	9,298.88	30,429.46	2,072	June 21, 1894	12
112	New Orleans.....	107,552.83	4,731.88	224,296.66	53,705.10	277,971.76	3,430	Mar. 18, 1898	12
104	Raleigh.....	92,727.71	3,928.95	203,011.94	47,110.72	250,122.66	3,183	Apr. 17, 1894	12
115	Salem.....	34,127.66	1,769.88	135,927.41	65,397.01	201,324.42	3,750	Aug. 1, 1908	2
110	Tacoma.....		100.00	56,403.86	59,579.23	115,983.09	3,200	Jan. 30, 1904	2
	Total.....	1,861,954.83	49,513.11	3,025,999.48	496,038.08	3,522,037.56			
	Equipage.....					880,409.39			
	Grand total.....					4,402,546.95			

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous* expense, including commuted rations.	Stores issued, including provisions and medical stores.							
CRUISERS—THIRD CLASS.											
3555	Albany.....	\$237,367.23	\$11,638.20	\$131,267.82	\$380,273.25	\$16,333.48	\$136,968.07	\$533,604.80	3,430	May 29, 1900	12
3556	Annapolis.....			1,212.60	1,212.60			1,212.60	3,750	Dec. 15, 1904	12
3557	Birmingham.....	388,839.36	10,752.49	349,305.39	748,897.24	27,100.36	93,505.35	869,502.95	3,750	Apr. 11, 1904	12
3558	Chattanooga.....	368,148.30	38,761.68	277,570.75	684,480.73	15,574.54	14,958.85	714,214.12	3,200	Oct. 11, 1904	12
3559	Chester.....	165,437.92	9,132.78	159,185.36	333,756.06	9,049.91	134,716.75	477,522.72	3,750	Apr. 25, 1908	11
3560	Cincinnati.....		6,969.44		6,969.44	1,777.00	1,405.96	10,152.49	3,207	Nov. 2, 1903	12
3561	Cleveland.....	270,926.96	18,277.15	157,474.71	446,678.82	24,576.58	107,123.70	578,379.10	3,207	do.	12
3562	Denver.....	217,717.42	11,300.89	110,501.09	339,519.40	48,450.45	357,315.47	745,294.32	3,200	May 17, 1904	1
3563	Des Moines.....	250,422.63	14,024.46	189,619.07	454,066.16	12,208.97	5,318.66	471,593.79	3,200	Mar. 5, 1904	9
3564	Galveston.....	439,256.79	25,357.01	217,096.21	681,710.01	23,708.24	80,358.94	785,777.19	3,200	Feb. 15, 1905	12
3565	Marblehead.....		61.00	195.25	256.25		19,948.25	20,204.50	2,072	Apr. 2, 1904	12
3566	New Orleans.....	272,445.37	17,690.09	216,358.42	506,463.88	15,013.73	56,876.23	578,353.84	3,183	Apr. 17, 1894	12
3567	Raleigh.....		535.28	552.00	1,087.28		133.74	1,221.02	3,183	do.	12
3568	Salem.....	350,455.12	15,150.74	276,311.55	641,917.41	42,400.34	121,382.85	805,706.60	3,750	Aug. 1, 1908	12
3569	Tacoma.....	449,942.51	33,804.00	293,147.66	776,894.17	33,823.88	95,475.50	906,133.55	3,200	Jan. 30, 1904	12
	Total.....	3,410,959.61	213,425.21	2,379,797.88	6,004,182.70	270,035.48	1,224,718.32	7,498,936.50			

First quarter.

Title C.										
No.	Name of vessel.	Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Days in full commission.	Status. ¹
CRUISERS—THIRD CLASS.										
3555	Albany.....	462,825.56	8995.81	867,808.94	\$131,430.31	\$22,168.84	\$3,373.35	\$156,972.50		
3562	Birmingham.....	85,513.55	2,409.87	31,764.82	119,688.24	9,645.29	32,867.19	162,230.72		
3566	Chattanooga.....	8,624.18		2,940.48	11,464.66	1,771.15	780.28	11,473.76	19	
3567	Chester.....			174.00	174.00	7.05	3,715.63	3,795.68		
3569	Cincinnati.....	69,006.93	2,106.12	54,993.27	126,106.32	4,729.65	835.45	126,369.20		
3574	Cleveland.....	67,758.49		43,960.93	111,719.42	1,218.53	938.63	113,286.22		
3585	Denver.....					628.17	142.04	142.04		
3586	Des Moines.....	69,267.56	1,789.14	25,463.59	96,520.29	18,359.00	71,231.90	186,111.19		
3587	Gallatin.....		2.35		2.35	3,329.04	839.39	4,170.78		
3581	Marblehead.....	68,534.01		44,454.06	112,988.07	1,510.40	1,407.57	115,998.04		
3584	New Orleans.....	33,916.08	116.04	14,363.27	48,395.39	69,458.47	1,862.96	118,716.82	47	
3593	Salmon.....	60,639.74	1,152.75	31,460.72	93,253.21	3,047.59	13,137.75	109,438.55		
3588	Tacoma.....									
	Total.....	526,086.10	8,572.08	317,064.08	851,742.26	133,330.68	128,391.24	1,113,464.18		

¹ Credit.¹ All cruisers, third class, in commission 92 days unless otherwise shown.

MONITORS.

Mr. KELLEY. Suppose you take the *Cheyenne*.

Admiral POTTER. The *Cheyenne* was in full commission for 12 months in 1916, and the total operating expense was \$231,584.44. We have nine months of the *Cheyenne* in 1921.

Mr. KELLEY. How much is that?

Admiral POTTER. \$299,670.77.

Mr. KELLEY. These monitors have been in and out quite a bit?

Admiral POTTER. Yes, sir. For the first three quarters of 1922 the expense was \$37,515.21. The repairs on the *Cheyenne* for 1922 amounted to \$213.31, while her repairs for 1921 amounted to \$13,131.94. The repairs on the *Cheyenne* for 1916 amounted to \$19,972.96. She was first commissioned on December 8, 1902.

Mr. KELLEY. How long have the monitors been in commission this year, or during the first three months?

Mr. REED. You have a notation on the table right there.

Mr. KELLEY. The monitors were in full commission for 92 days, except as shown otherwise, according to this notation.

Mr. REED. Four were entirely out, one in for part of the time, and one has been in for full time.

Mr. KELLEY. So that the monitors are practically out of the way?

Mr. REED. Yes, sir.

Mr. KELLEY. You may put in your table covering the monitors at this point.

Admiral POTTER. I will do so.

No.	Name of vessel.	Accrued pay.	Public vouchers, including commuted rations.	Stores issued, including provisions and medical stores.	Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Full commission.	Commission in reserve.
	MONITORS.										
704	Amphitrite.....	\$57,030.41	\$4,404.11	\$23,418.36	\$64,912.88	\$20,160.31	\$85,073.19	3,990	Apr. 23, 1895	12	12
700	Cheyenne.....	132,202.10	1,818.37	77,991.01	211,611.48	19,972.96	231,584.44	3,225	Dec. 8, 1902	12	12
703	Montanmoreau.....					4,818.57	4,818.57	3,990	Oct. 27, 1891	12	12
706	Monadnock.....	83,396.07	2,247.83	112,800.72	198,444.62	4,499.13	202,943.77	3,990	Feb. 20, 1896	12	12
708	Monterey.....	67,131.68	3,173.85	39,854.48	110,162.01	13,872.83	126,034.87	4,084	Feb. 13, 1893	12	12
701	Ozark.....	92,104.93	3,880.26	42,287.91	138,273.10	31,635.01	169,908.11	3,225	Oct. 28, 1902	12	12
702	Tallahassee.....	95,519.61	1,783.43	54,545.55	151,848.59	18,739.57	170,588.16	3,225	June 18, 1903	12	12
707	Terror.....					4,565.11	4,565.11	3,490	Apr. 13, 1885	5	5
703	Tonopah.....	56,479.71	2,704.70	26,901.21	86,085.62	7,776.66	93,862.28	3,225	Mar. 5, 1903	5	5
	Total.....	563,804.51	20,074.55	377,399.24	961,338.30	128,000.20	1,089,338.50				
	Equipage.....						272,334.63				
	Grand total.....						1,361,673.13				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
	MONITORS.										
3601	Amphitrite.....			\$95.51	\$95.51		\$363.01	\$459.52	3,900	Apr. 23, 1895	9
3610	Cheyenne.....		\$2,170.08	92,447.82	94,617.90	\$191,920.93	13,131.94	299,670.77	3,255	Dec. 8, 1902	
3602	Monadnock.....			809.25	809.25		16,078.98	15,269.73	3,990	Feb. 20, 1896	
3603	Monterey.....	\$91,484.81	2,998.84	74,991.99	109,463.64	12,489.41	5,319.51	187,272.58	4,084	Feb. 13, 1893	12
3607	Ozark.....		23.12	17.85	40.97		5,493.25	5,543.22	3,225	Oct. 28, 1902	
3609	Tallahassee.....	27,151.50	645.00	30,151.56	57,948.06	187,723.73	22,025.00	267,696.85	3,225	June 18, 1903	10
3608	Tonopah.....			32,939.19	32,939.19	628.94	3,458.39	37,024.52	3,225	Mar. 5, 1903	
7925	Puritan.....					14.23		14.23			
	Total.....	118,636.31	5,825.04	229,835.67	354,287.02	392,775.24	65,870.14	812,942.40			

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
MONITORS.											
3610	Cheyenne.....	\$21,993.61	\$624.08	\$14,499.58	\$37,117.27	\$184.63	\$213.31	\$37,515.21			92
3612	Monadnock.....						913.69	913.69			34
3613	Monterey.....	12,606.10	193.11	8,547.07	21,346.28	131.65	79.17	21,557.10	58		92
3617	Ozark.....						752.66	752.66			92
3609	Tallahassee.....	9,752.35	60.10	2,009.23	11,821.68	2,428.64	824.78	15,075.10			92
3608	Tonopah.....		1.00		1.00		344.93	345.93			92
	Total.....	44,352.06	878.29	25,055.88	70,286.23	2,744.92	3,128.54	76,156.69			

¹ All monitors in commission 92 days unless otherwise shown.

DESTROYERS.

Mr. KELLEY. How many destroyers are in your table for 1921?

Mr. REED. We will have to count them up. Our table or recapitulation shows 267 in commission at various times during the year.

Mr. KELLEY. Suppose you count them up.

Mr. REED. You want the number on which expenditures were made during 1921?

Mr. KELLEY. Yes.

Mr. REED. There were 267. That is the number that was in commission during some portion of the year.

Mr. DAVIS. Of all grades?

Admiral POTTER. Yes, sir; including coast defense destroyers.

Mr. KELLEY. That is not the total number, is it?

Admiral POTTER. No, sir.

Mr. KELLEY. You can put in a statement showing the exact number of destroyers on which expenditures were made in 1921.

Mr. REED. I will do so.

NOTE.—Total, 328. In commission part or whole year, 267. Coast torpedo vessels and torpedo boats, 31.

Mr. KELLEY. What was the total cost of maintenance and operation of the destroyers in 1921?

Admiral POTTER. Of the whole group?

Mr. KELLEY. Yes; the whole group.

Admiral POTTER. The total for 1921 was \$75,869,098.92.

Mr. KELLEY. That does not include the cost of maintenance and operation of fuel ships and supply ships necessary to go with the destroyers!

Admiral POTTER. No, sir; that is for the destroyers themselves.

Mr. KELLEY. How many destroyers did you have in 1916?

Mr. REED. Fifty-seven.

Mr. KELLEY. What was the total cost of the destroyers in that year?

Admiral POTTER. \$4,231,092.07.

Mr. KELLEY. Will you give the amount for 1922?

Admiral POTTER. \$15,321,703.69 for the first three months of 1922.

Mr. REED. There is one thing in regard to these figures to which I should call attention, and that is that the two tables for 1916 to 1921 are prepared upon a slightly different basis. The 1916 figures do not include issues of equipage to ships. We did not have that split up by individual ships at that time, whereas for 1921 the figures do include issues of equipage to the ships. Therefore, the 1916 figures will have to be increased very slightly over the amounts shown here in order to bring them upon a comparable basis.

Mr. KELLEY. Where did you carry equipage in 1916?

Mr. REED. It was carried as a lump sum, and we did not split it up by ships at that time.

Mr. KELLEY. Did you split it by groups of ships?

Mr. REED. I think we can give a typical average from the 1922 figures if it is not split in the report that way.

Mr. KELLEY. The main thing is to know the approximate amount of it, so that our minds may not be confused by indefinite figures.

Suppose you read the statement giving the total for the item you mentioned.

Mr. REED. The report does not show it. The total amount of the equipage issued to ships in 1916 was \$14,007,523.17, increasing the table 25 per cent when compared with 1921 and 1922.

Mr. KELLEY. To all ships?

Mr. REED. Yes, sir; we will have to make a distribution of that by classes as best we can, so as to get it upon a comparable basis.

Mr. FRENCH. Would the percentage figure, using the total expenditure for equipage for the year 1921, indicate the proportionate figures for equipage in 1916?

Mr. REED. That might give a fairly accurate basis, but I would like to talk it over with the people who are handling the details.

NOTE.—Twenty-five per cent has been added to all 1916 tables by groups and an analysis of the normal equipage for principal ships is here included.

Average cost of equipage for the following classes of vessels during the first quarter of fiscal year 1922.

Battleship, first line.....	\$23, 104. 18
Battleship, second line.....	5, 230. 87
Armored cruisers.....	8, 535. 94
Cruisers, first class.....	8, 006. 13
Cruisers, second class.....	4, 721. 99
Cruisers, third class.....	8, 082. 54
Destroyers.....	4, 527. 94

Mr. KELLEY. Equipage covers replacements in the way of furniture, bedding, hammocks, boats, etc.?

Admiral POTTER. Yes, sir; anything that makes the ship habitable and usable, as distinguished from consumable supplies.

Mr. KELLEY. It would vary, of course, in proportion to the general prices at any particular period.

Admiral POTTER. Yes, sir.

Mr. KELLEY. But it would not vary very greatly in the number of articles.

Admiral POTTER. No, sir.

Mr. REED. In connection with the particular group we are discussing now, or destroyers, in 1921 the amount of equipage issued to them was \$23,000,000. That was because of the tremendous number of new destroyers coming along and being put into commission, and in the case of many of those destroyers that amount includes the initial outfit. In other words, the figures for 1921 are undoubtedly excessive for equipage for the group of destroyers in commission.

Mr. KELLEY. You have been in the business so long that you probably could tell pretty well what it would average per battleship per annum for replacement of equipage?

Admiral POTTER. I could not tell you that offhand, but we could get it from the figures.

Mr. KELLEY. For destroyers it would be rather negligible, as compared with the whole amount, would it not?

Admiral POTTER. The amount for a destroyer would be small as compared with a large ship, but with this number in commission it would amount to quite a sum of money.

Mr. KELLEY. You may give that as accurately as you can. Of course, I do not want to put the department to any unusual or needless effort.

Col. ROOSEVELT. What you want is a reasonable approximation of the amount?

Mr. KELLEY. Yes; so that we may have an intelligent understanding of it. You may insert your table at this point.

Admiral POTTER. We will do so.

1916.

No.	Name of vessel.	Accrued pay.	Title C.		Total operating expenses.	Repairs and alterations to ships, including outfitage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
			Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
DESTROYERS.											
206	Allen.....	\$49,278.04	\$1,045.62	\$30,879.85	\$81,203.51	\$20,308.54	\$101,512.05	1,071	Building.....	12	
221	Ammen.....	57,501.00	236.10	54,337.12	112,074.22	13,906.03	125,980.25	1,030	May 25, 1911	12	
246	Arwin.....	5,977.97	435.08	55,224.24	114,967.89	10,583.63	131,551.52	1,036	Jan. 17, 1914	12	
247	Bach.....	5,988.99	299.45	22,751.96	58,741.10	21,871.09	80,612.79	1,032	Mar. 26, 1913	12	
222	Beale.....	4,508.16	389.09	47,119.30	101,844.64	17,299.32	119,084.06	1,036	Aug. 30, 1912	12	
248	Bennam.....	4,227.45	452.96	36,147.44	84,857.85	8,217.59	92,965.44	1,036	Jan. 30, 1914	12	
223	Burrows.....				84,857.85		92,965.44		Feb. 21, 1911	12	
239	Cadwell.....	8,474.10							Building.....	12	
243	Cassin.....	58,277.45	159.07	55,991.68	114,624.85	15,830.96	130,464.81	1,020	Aug. 9, 1913	12	
245	Comier.....								Building.....	5	
225	Conyngham.....	23,725.03	183.28	23,532.51	47,440.82	23.05	47,463.87	1,000	Jan. 21, 1916	12	
270	Craven.....	154.90							Building.....	12	
274	Cummings.....	56,274.58	312.07	53,284.73	103,211.70	5,031.51	108,246.21	1,050	Sept. 19, 1913	10	
265	Cushing.....	49,614.90							Building.....	10	
266	Davis.....								Building.....	3	
254	Dawson.....	28,612.58	326.20	12,265.52	41,234.30	1,912.74	43,147.04	1,072	Feb. 11, 1915	5	
224	Dayton.....	50,881.15	220.46	35,461.71	86,563.32	28,667.80	115,231.12	742	Oct. 29, 1910	12	
212	Duncan.....	22,790.62	522.50	29,739.98	53,043.10	11,565.56	64,608.66	1,014	Aug. 30, 1913	5	
234	Ericsson.....	52,750.75	321.37	59,036.86	112,108.98	3,178.37	115,287.35	1,090	Aug. 14, 1915	10	
225	Fanning.....	52,283.15	200.50	40,225.60	92,719.25	22,118.52	114,837.77	742	June 21, 1912	12	
216	Flusser.....	35,930.50	447.44	23,769.28	60,147.22	5,566.90	65,714.12	700	Oct. 28, 1909	12	
271	Gwin.....								Building.....	12	
226	Hemley.....	40,261.39	208.15	43,579.08	84,038.62	12,369.81	96,408.43	742	Dec. 6, 1912	12	
257	Jacob Jones.....	21,847.17	5.98	37,271.01	55,124.46	600.20	55,724.66	1,150	Feb. 10, 1916	5	
227	Jarvis.....	49,110.43							Oct. 22, 1912	12	
228	Jenkins.....	52,318.58	434.55	34,263.03	89,684.91	20,739.30	110,424.21	742	June 15, 1912	12	
229	Jewett.....	47,663.72	190.36	29,506.26	77,372.33	23,796.96	101,169.29	742	May 25, 1912	12	
317	Lansom.....	36,186.54	209.85	34,670.66	70,067.05	17,915.50	87,982.55	700	Feb. 10, 1910	12	
231	McCall.....	45,137.63	274.07	28,928.66	74,340.36	37,602.92	111,943.28	742	Jan. 23, 1911	12	
245	McDougal.....	57,345.25	609.44	57,907.22	115,919.91	15,668.28	131,588.19	1,020	June 16, 1914	12	
230	Mayrant.....								Building.....	12	
232	Mayrnan.....	36,505.23	426.81	27,474.14	63,406.18	29,904.73	93,310.91	742	July 12, 1911	12	
281	Nicholson.....	47,490.13	631.47	27,296.02	115,356.82	8,688.59	124,045.41	1,050	Apr. 30, 1915	12	
282	O'Brien.....	56,200.78	98.92	63,029.02	121,448.70	1,801.37	123,250.07	1,050	May 22, 1913	12	
283	Parker.....	56,708.68	383.21	50,412.47	116,498.76	19,494.42	135,993.18	1,090	Dec. 30, 1913	12	

218	Frymason.....	37,445.37	280.03	30,122.20	67,848.20	11,007.40	78,855.60	.....	.....	.....	12
219	Rold.....	34,142.92	150.55	23,590.29	57,802.76	18,719.82	76,512.58	.....	.....	.....	12
220	Rowan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
221	Sampson.....	103.90	.....	.....	103.90	6.35	110.25	.....	.....	.....	.....
222	Shaw.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
223	Smith.....	35,415.68	30.00	23,266.26	58,711.94	25,034.63	83,746.57	.....	.....	.....	.....
224	Sterett.....	30,965.01	77.81	40,950.17	71,992.99	16,418.45	88,411.44	.....	.....	.....	.....
225	Stockton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
226	Terry.....	34,306.47	198.77	24,136.71	58,541.95	14,880.72	73,528.67	.....	.....	.....	.....
227	Tripp.....	32,336.18	190.28	23,013.28	55,548.74	27,114.63	82,663.37	.....	.....	.....	.....
228	Tucker.....	11,992.10	33.34	16,131.95	27,777.39	27,110.16	27,887.55	.....	.....	.....	.....
229	Wadsworth.....	57,118.66	634.93	44,137.31	101,910.30	1,839.49	103,750.39	.....	.....	.....	.....
230	Wainwright.....	7,056.01	18.60	5,676.78	12,751.39	11,254.64	24,006.03	.....	.....	.....	.....
231	Walke.....	35,606.79	83.70	27,451.26	63,531.75	19,345.98	82,877.73	.....	.....	.....	.....
232	Warrington.....	53,383.11	356.40	36,250.37	90,008.88	34,385.60	124,394.48	.....	.....	.....	.....
233	Wilkes.....	52,213.04	93.37	62,315.44	114,621.85	2,298.38	116,920.23	.....	.....	.....	.....
234	Winslow.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
235	Total.....	1,889,751.46	13,928.60	1,627,292.60	3,530,972.66	700,119.41	4,231,092.07	.....	.....	.....	.....
236	Equipage.....	.....	.....	.....	.....	.....	1,037,773.02	.....	.....	.....	.....
237	Total.....	.....	.....	.....	.....	.....	5,268,865.09	.....	.....	.....	.....

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including rationed commodities.	Stores issued, including provisions and medical stores.							
DESTROYERS.											
4132	Aaron, Ward.	\$102,717.54	\$1,161.35	\$115,872.45	\$219,751.34	\$43,684.05	\$48,056.83	\$311,492.22	1,154	Apr. 21, 1919	12
4184	Abbott.	69,817.52	2,231.62	36,750.93	108,800.07	29,017.08	35,559.54	193,376.69	1,213	July 19, 1919	12
4211	Allen.	106,166.32	2,981.21	90,926.92	200,074.45	7,090.17	33,744.96	240,909.18	1,215	Nov. 24, 1919	12
4066	Alford.	42,124.21	1,173.07	55,644.77	98,942.05	5,091.46	23,178.65	127,212.16	1,071	Jan. 24, 1917	12
4035	Ammen.		612.00	320.08	932.08		21,705.02	22,637.10		May 23, 1911	
4172	Anthony.	28,954.41	479.68	35,908.45	65,342.54	5,129.23	3,240.54	72,712.31	1,191	June 10, 1919	12
4258	Atulick.	33,827.51	1,318.87	48,793.31	83,939.67	14,437.24	76,855.19	175,202.10	1,215	July 26, 1919	12
4294	Auburne, Charles.	67,262.40	1,259.28	79,403.53	147,925.51	107,103.88	4,105.39	259,136.78	1,215	Mar. 23, 1920	12
4047	Aylwin.	33,354.68	490.00	8,060.79	41,945.47	1,014.18	17,067.34	60,046.99	1,036	Jan. 17, 1914	7
4128	Babott.	73,198.60	748.54	61,706.14	135,653.28	20,478.54	61,760.16	197,418.44	1,211	May 28, 1919	12
4126	Badger.	74,169.86	1,396.03	48,327.93	123,863.52	21,107.25	14,463.26	235,370.73	1,211	Aug. 27, 1919	11
4196	Bagley.	48,921.42	1,867.28	83,971.52	131,760.32	12,363.45	8,438.83	146,864.21	1,213	June 27, 1919	12
4185	Bagley.	66,925.94	2,096.82	48,798.90	117,731.52	12,363.45	8,438.83	273,862.72	1,213	Mar. 23, 1919	12
4269	Bailey.	27,208.37	3,965.98	48,847.54	79,712.37	82,708.48	98,046.77	179,750.25	1,215	June 30, 1919	12
4255	Baldwin.	47,316.31	936.51	60,771.57	109,015.79	5,869.87	14,706.35	329,750.33	1,215	June 3, 1919	12
4267	Bancroft.	95,333.34	1,335.57	164,816.30	261,115.41	3,869.87	16,750.95	393,190.19	1,215	Dec. 27, 1919	12
4213	Barker.	124,249.50	2,587.90	194,643.20	319,643.20	18,072.98	39,038.97	396,710.18	1,154	Mar. 14, 1919	12
4119	Barney.	140,813.20	1,386.72	161,398.82	303,598.82	18,072.98	39,038.97	396,710.18	1,154	Mar. 14, 1919	12
4040	Beale.			16,418.60	16,418.60	31.90	5,039.91	22,860.41	742	Aug. 30, 1912	
4251	Belknap.	59,737.36	2,407.25	159,187.55	221,332.16	47,087.92	24,172.88	292,592.96	1,215	Aug. 28, 1919	12
4095	Bell.	35,679.52	4,018.38	78,064.56	130,184.63	59,184.34	2,354.40	200,723.37	1,185	July 31, 1918	12
4049	Bennam.	101,393.23	4,534.42	48,741.15	154,668.80	86,800.04	168,288.31	340,017.30	1,036	Jan. 20, 1914	12
4153	Bentley.	101,762.47	1,261.93	131,853.34	200,780.69	28,272.33	58,062.10	387,115.12	1,165	May 19, 1919	12
4151	Biddle.	73,580.08	1,493.63	100,760.91	200,785.31	6,523.02	92,880.55	309,188.88	1,154	Apr. 22, 1919	12
4293	Billingly.	132,875.83	1,355.27	134,568.95	278,790.05	34,507.00	5,157.11	389,943.00	1,215	Mar. 1, 1920	4
4150	Blackly.	76,576.64	1,788.30	59,917.84	138,592.78	4,874.01	52,067.08	179,631.14	1,154	May 8, 1919	12
4136	Boggs.	113,414.07	4,102.19	70,959.60	188,585.86	2,074.78	13,205.63	206,791.49	1,247	Sept. 23, 1918	12
4215	Borie.	102,472.35	2,604.50	84,937.25	190,070.19	211,467.42	43,516.62	353,984.01	1,215	Mar. 24, 1920	12
4197	Branch.	78,653.95	1,244.15	71,928.96	151,807.06	32,087.40	23,834.82	190,906.74	1,215	July 26, 1920	11
4283	Breck.	87,872.60	1,316.77	78,174.95	167,394.38	10,033.80	61,223.55	237,617.12	1,165	Feb. 27, 1919	12
4122	Breese.	75,349.24	1,317.42	85,134.64	161,701.30	35,111.80	4,101.92	200,815.23	1,213	Oct. 23, 1918	12
4222	Brooks.	138,016.06	23,590.12	86,465.63	248,471.81	130,532.04	7,300.07	406,314.92	1,215	June 18, 1920	11
4210	Brown.	104,208.10	2,157.33	115,972.20	222,227.54	6,830.14	17,205.61	246,276.32	1,215	Oct. 31, 1919	12
4216	Bryant.	13,267.10	1,474.05	34,867.00	50,604.15	217,000.39	2,024.73	266,305.60	1,215	Dec. 28, 1920	12
4259	Bryant.	13,267.10	1,474.05	34,867.00	50,604.15	217,000.39	2,024.73	266,305.60	1,215	Dec. 28, 1920	12
4131	Buchanan.	65,162.56	1,308.72	100,340.61	200,784.63	20,184.37	68,750.93	288,730.93	1,154	Jan. 20, 1919	12

Birth.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.	1941.	1942.	1943.	1944.	1945.	1946.	1947.	1948.	1949.	1950.	1951.	1952.	1953.	1954.	1955.	1956.	1957.	1958.	1959.	1960.	1961.	1962.	1963.	1964.	1965.	1966.	1967.	1968.	1969.	1970.	1971.	1972.	1973.	1974.	1975.	1976.	1977.	1978.	1979.	1980.	1981.	1982.	1983.	1984.	1985.	1986.	1987.	1988.	1989.	1990.	1991.	1992.	1993.	1994.	1995.	1996.	1997.	1998.	1999.	2000.	2001.	2002.	2003.	2004.	2005.	2006.	2007.	2008.	2009.	2010.	2011.	2012.	2013.	2014.	2015.	2016.	2017.	2018.	2019.	2020.	2021.	2022.	2023.	2024.	2025.	2026.	2027.	2028.	2029.	2030.	2031.	2032.	2033.	2034.	2035.	2036.	2037.	2038.	2039.	2040.	2041.	2042.	2043.	2044.	2045.	2046.	2047.	2048.	2049.	2050.	2051.	2052.	2053.	2054.	2055.	2056.	2057.	2058.	2059.	2060.	2061.	2062.	2063.	2064.	2065.	2066.	2067.	2068.	2069.	2070.	2071.	2072.	2073.	2074.	2075.	2076.	2077.	2078.	2079.	2080.	2081.	2082.	2083.	2084.	2085.	2086.	2087.	2088.	2089.	2090.	2091.	2092.	2093.	2094.	2095.	2096.	2097.	2098.	2099.	2100.	2101.	2102.	2103.	2104.	2105.	2106.	2107.	2108.	2109.	2110.	2111.	2112.	2113.	2114.	2115.	2116.	2117.	2118.	2119.	2120.	2121.	2122.	2123.	2124.	2125.	2126.	2127.	2128.	2129.	2130.	2131.	2132.	2133.	2134.	2135.	2136.	2137.	2138.	2139.	2140.	2141.	2142.	2143.	2144.	2145.	2146.	2147.	2148.	2149.	2150.	2151.	2152.	2153.	2154.	2155.	2156.	2157.	2158.	2159.	2160.	2161.	2162.	2163.	2164.	2165.	2166.	2167.	2168.	2169.	2170.	2171.	2172.	2173.	2174.	2175.	2176.	2177.	2178.	2179.	2180.	2181.	2182.	2183.	2184.	2185.	2186.	2187.	2188.	2189.	2190.	2191.	2192.	2193.	2194.	2195.	2196.	2197.	2198.	2199.	2200.	2201.	2202.	2203.	2204.	2205.	2206.	2207.	2208.	2209.	2210.	2211.	2212.	2213.	2214.	2215.	2216.	2217.	2218.	2219.	2220.	2221.	2222.	2223.	2224.	2225.	2226.	2227.	2228.	2229.	2230.	2231.	2232.	2233.	2234.	2235.	2236.	2237.	2238.	2239.	2240.	2241.	2242.	2243.	2244.	2245.	2246.	2247.	2248.	2249.	2250.	2251.	2252.	2253.	2254.	2255.	2256.	2257.	2258.	2259.	2260.	2261.	2262.	2263.	2264.	2265.	2266.	2267.	2268.	2269.	2270.	2271.	2272.	2273.	2274.	2275.	2276.	2277.	2278.	2279.	2280.	2281.	2282.	2283.	2284.	2285.	2286.	2287.	2288.	2289.	2290.	2291.	2292.	2293.	2294.	2295.	2296.	2297.	2298.	2299.	2300.	2301.	2302.	2303.	2304.	2305.	2306.	2307.	2308.	2309.	2310.	2311.	2312.	2313.	2314.	2315.	2316.	2317.	2318.	2319.	2320.	2321.	2322.	2323.	2324.	2325.	2326.	2327.	2328.	2329.	2330.	2331.	2332.	2333.	2334.	2335.	2336.	2337.	2338.	2339.	2340.	2341.	2342.	2343.	2344.	2345.	2346.	2347.	2348.	2349.	2350.	2351.	2352.	2353.	2354.	2355.	2356.	2357.	2358.	2359.	2360.	2361.	2362.	2363.	2364.	2365.	2366.	2367.	2368.	2369.	2370.	2371.	2372.	2373.	2374.	2375.	2376.	2377.	2378.	2379.	2380.	2381.	2382.	2383.	2384.	2385.	2386.	2387.	2388.	2389.	2390.	2391.	2392.	2393.	2394.	2395.	2396.	2397.	2398.	2399.	2400.	2401.	2402.	2403.	2404.	2405.	2406.	2407.	2408.	2409.	2410.	2411.	2412.	2413.	2414.	2415.	2416.	2417.	2418.	2419.	2420.	2421.	2422.	2423.	2424.	2425.	2426.	2427.	2428.	2429.	2430.	2431.	2432.	2433.	2434.	2435.	2436.	2437.	2438.	2439.	2440.	2441.	2442.	2443.	2444.	2445.	2446.	2447.	2448.	2449.	2450.	2451.	2452.	2453.	2454.	2455.	2456.	2457.	2458.	2459.	2460.	2461.	2462.	2463.	2464.	2465.	2466.	2467.	2468.	2469.	2470.	2471.	2472.	2473.	2474.	2475.	2476.	2477.	2478.	2479.	2480.	2481.	2482.	2483.	2484.	2485.	2486.	2487.	2488.	2489.	2490.	2491.	2492.	2493.	2494.	2495.	2496.	2497.	2498.	2499.	2500.	2501.	2502.	2503.	2504.	2505.	2506.	2507.	2508.	2509.	2510.	2511.	2512.	2513.	2514.	2515.	2516.	2517.	2518.	2519.	2520.	2521.	2522.	2523.	2524.	2525.	2526.	2527.	2528.	2529.	2530.	2531.	2532.	2533.	2534.	2535.	2536.	2537.	2538.	2539.	2540.	2541.	2542.	2543.	2544.	2545.	2546.	2547.	2548.	2549.	2550.	2551.	2552.	2553.	2554.	2555.	2556.	2557.	2558.	2559.	2560.	2561.	2562.	2563.	2564.	2565.	2566.	2567.	2568.	2569.	2570.	2571.	2572.	2573.	2574.	2575.	2576.	2577.	2578.	2579.	2580.	2581.	2582.	2583.	2584.	2585.	2586.	2587.	2588.	2589.	2590.	2591.	2592.	2593.	2594.	2595.	2596.	2597.	2598.	2599.	2600.	2601.	2602.	2603.	2604.	2605.	2606.	2607.	2608.	2609.	2610.	2611.	2612.	2613.	2614.	2615.	2616.	2617.	2618.	2619.	2620.	2621.	2622.	2623.	2624.	2625.	2626.	2627.	2628.	2629.	2630.	2631.	2632.	2633.	2634.	2635.	2636.	2637.	2638.	2639.	2640.	2641.	2642.	2643.	2644.	2645.	2646.	2647.	2648.	2649.	2650.	2651.	2652.	2653.	2654.	2655.	2656.	2657.	2658.	2659.	2660.	2661.	2662.	2663.	2664.	2665.	2666.	2667.	2668.	2669.	2670.	2671.	2672.	2673.	2674.	2675.	2676.	2677.	2678.	2679.	2680.	2681.	2682.	2683.	2684.	2685.	2686.	2687.	2688.	2689.	2690.	2691.	2692.	2693.	2694.	2695.	2696.	2697.	2698.	2699.	2700.	2701.	2702.	2703.	2704.	2705.	2706.	2707.	2708.	2709.	2710.	2711.	2712.	2713.	2714.	2715.	2716.	2717.	2718.	2719.	2720.	2721.	2722.	2723.	2724.	2725.	2726.	2727.	2728.	2729.	2730.	2731.	2732.	2733.	2734.	2735.	2736.	2737.	2738.	2739.	2740.	2741.	2742.	2743.	2744.	2745.	2746.	2747.	2748.	2749.	2750.	2751.	2752.	2753.	2754.	2755.	2756.	2757.	2758.	2759.	2760.	2761.	2762.	2763.	2764.	2765.	2766.	2767.	2768.	2769.	2770.	2771.	2772.	2773.	2774.	2775.	2776.	2777.	2778.	2779.	2780.	2781.	2782.	2783.	2784.	2785.	2786.	2787.	2788.	2789.	2790.	2791.	2792.	2793.	2794.	2795.	2796.	2797.	2798.	2799.	2800.	2801.	2802.	2803.	2804.	2805.	2806.	2807.	2808.	2809.	2810.	2811.	2812.	2813.	2814.	2815.	2816.	2817.	2818.	2819.	2820.	2821.	2822.	2823.	2824.	2825.	2826.	2827.	2828.	2829.	2830.	2831.	2832.	2833.	2834.	2835.	2836.	2837.	2838.	2839.	2840.	2841.	2842.	2843.	2844.	2845.	2846.	2847.	2848.	2849.	2850.	2851.	2852.	2853.	2854.	2855.	2856.	2857.	2858.	2859.	2860.	2861.	2862.	2863.	2864.	2865.	2866.	2867.	2868.	2869.	2870.	2871.	2872.	2873.	2874.	2875.	2876.	2877.	2878.	2879.	2880.	2881.	2882.	2883.	2884.	2885.	2886.	2887.	2888.	2889.	2890.	2891.	2892.	2893.	2894.	2895.	2896.	2897.	2898.	2899.	2900.	2901.	2902.	2903.	2904.	2905.	2906.	2907.	2908.	2909.	2910.	2911.	2912.	2913.	2914.	2915.	2916.	2917.	2918.	2919.	2920.	2921.	2922.	2923.	2924.	2925.	2926.	2927.	2928.	2929.	2930.	2931.	2932.	2933.	2934.	2935.	2936.	2937.	2938.	2939.	2940.	2941.	2942.	2943.	2944.	2945.	2946.	2947.	2948.	2949.	2950.	2951.	2952.	2953.	2954.	2955.	2956.	2957.	2958.	2959.	2960.	2961.	2962.	2963.	2964.	2965.	2966.	2967.	2968.	2969.	2970.	2971.	2972.	2973.	2974.	2975.	2976.	2977.	2978.	2979.	2980.	2981.	2982.	2983.	2984.	2985.	2986.	2987.	2988.	2989.	2990.	2991.	2992.	2993.	2994.	2995.	2996.	2997.	2998.	2999.	3000.
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1921—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipment.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Miscellaneous expense, including commuted rations.								Stores issued, including provisions and medical stores.
DESTROYERS - continued.											
4046	Duncan.....	\$39,848.22	\$1,968.03	\$72,855.02	\$31,674.94	\$200,691.85	\$305,221.81	1,014	Aug. 30, 1913	12	
4152	Du Pont.....	94,300.45	\$2,464.79	201,188.28	5,467.40	47,370.05	254,025.73	1,154	Apr. 30, 1919	12	
4049	Dyer.....	48,558.15	69,528.06	120,560.00	11,469.08	17,225.07	149,263.15	1,191	July 1, 1918	12	
4215	Edsall.....	37,558.55	102,601.69	140,619.45	190,622.03	1,043.75	332,284.63	1,215	Nov. 26, 1920	12	
4265	Edwards, J. D.....	108,648.87	1,958.92	196,128.06	54,008.54	3,042.73	256,785.12	1,215	Apr. 6, 1920	12	
4284	Edwards.....	29,746.17	55,059.86	85,322.82	10,802.79	105,565.40	201,691.01	1,215	Apr. 24, 1919	12	
4146	Elliot.....	87,047.66	145,309.07	255,423.55	29,850.41	50,049.40	335,323.36	1,154	Jan. 25, 1919	12	
4151	Ellis.....	83,954.08	67,792.49	153,137.59	16,457.79	16,785.70	185,381.08	1,154	June 7, 1919	12	
4056	Ericsson.....	50,672.08	54,854.39	106,482.55	88,326.14	48,539.92	243,348.81	1,090	Aug. 14, 1918	12	
4078	Evans.....	104,819.63	113,828.13	219,783.65	29,880.93	56,929.42	306,614.00	1,154	Nov. 11, 1918	12	
4063	Fairfax.....	57,223.02	61,997.15	120,507.63	61,365.80	18,592.87	200,486.30	1,154	Apr. 6, 1918	12	
4037	Fanning.....		294.61	294.61	1,247.91	11,819.43	13,082.03	742	June 21, 1912	1	
4332	Fanningholt.....		26,551.66	26,558.38	205,357.60	11,819.43	232,735.41	1,215	May 10, 1921	10	
4304	Farquhar.....	100,169.34	146,456.08	247,626.84	198,362.62	3,249.77	449,242.23	1,215	Aug. 5, 1920	11	
4300	Farragut.....	51,458.20	81,510.33	134,151.49	82,912.67	1,141.34	218,265.50	1,215	June 4, 1920	11	
4020	Flusser.....		32,275.24	32,417.24	69.17	1,897.91	34,384.32	700	Oct. 26, 1909	5	
4289	Flusser.....	64,121.08	106,068.80	171,791.11	36,834.32	32,247.14	240,872.42	1,215	Dec. 31, 1919	12	
4169	Foot.....	27,689.76	56,564.42	106,805.87	19,925.08	40,196.47	168,972.42	1,191	Mar. 21, 1919	12	
4228	Ford.....	85,124.03	86,882.83	95,021.75	326,092.18	21,582.88	442,696.81	1,215	May 17, 1920	10	
4234	Fox.....	147,208.66	87,453.46	236,714.00	130,717.67	6,769.92	374,201.59	1,215	Feb. 28, 1920	12	
4267	Fuller.....	79,801.62	91,246.72	176,844.89	4,886.29	3,391.47	187,270.03	1,213	Nov. 28, 1918	12	
4123	Gamble.....	37,773.95	78,342.38	160,380.22	23,488.34	28,946.48	213,645.78	1,215	Sept. 3, 1919	12	
4260	Gillis.....	142,030.15	115,335.58	274,851.65	135,116.82	74,450.06	438,914.95	1,215	do.....	12	
4247	Goff.....	16,640.08	65,404.01	82,311.96	202,778.74	1,183.57	286,245.27	1,215	Jan. 26, 1920	12	
4188	Goldborough.....	124,422.99	147,185.51	273,218.08	18,456.28	48,697.21	340,371.37	1,215	Jan. 26, 1920	12	
4192	Graham.....	128,761.22	135,904.91	266,068.37	118,145.69	41,003.18	426,838.24	1,215	Mar. 10, 1920	12	
4266	Greene.....	50,801.57	33,115.00	85,153.06	45,802.67	7,678.86	136,634.99	1,215	May 10, 1919	12	
4145	Gregory.....	92,645.68	162,268.37	256,221.25	78,700.54	83,024.08	417,948.87	1,164	Dec. 31, 1918	12	
4082	Griffey.....	52,463.23	66,567.48	119,260.03	11,074.42	9,273.02	183,637.47	1,191	June 1, 1918	12	
4072	Gwin.....	66,076.55	104,022.26	23,192.90	23,192.90	9,647.30	196,287.07	1,126	Mar. 8, 1920	12	
4133	Hale.....	77,468.86	167,961.92	103,419.34	13,174.49	16,094.62	180,721.34	1,164	June 12, 1919	12	
4141	Hamilton.....	72,168.98	75,417.84	149,044.84	205,285.24	11,262.26	180,972.34	1,154	Nov. 7, 1919	12	
4067	Hamilton, Paul.....	81,335.49	103,260.02	185,268.07	21,841.08	2,980.79	204,450.80	1,215	Sept. 21, 1920	12	
4199	Hampton.....	66,646.67	141,174.76	121,264.13	15,684.43	21,880.90	194,454.83	1,213	June 7, 1919	12	
4195	Hampton.....	125,158.39	125,158.39	250,316.78	15,684.43	21,880.90	297,682.12	1,213	May 24, 1919	12	

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including rationed.	Stores issued, including provisions and medical stores.							
4102	Mahan.....	\$138,990.72	\$2,020.14	\$112,845.30	\$283,865.16	\$20,448.13	\$120,278.78	\$430,592.07	1,185	Oct. 24, 1918	.....
4074	Manly.....	49,478.24	398.87	38,682.36	88,549.47	8,718.49	47,497.25	144,765.21	1,125	Oct. 15, 1917	12
4321	Marius.....	7,688.63	.....	40,117.47	47,806.10	205,969.50	1,418.38	255,193.98	1,215	Oct. 23, 1921	.....
4191	Mason.....	121,806.66	1,826.67	110,017.93	233,631.26	72,663.71	39,929.67	346,244.64	1,215	Feb. 28, 1920	.....
4031	Mayrant.....	.....	.....	.....	.....	.....	3,104.42	3,104.42	742	July 12, 1911	.....
4100	Maury.....	62,935.43	1,406.65	43,727.26	108,072.34	14,539.42	105,250.10	227,861.86	1,185	Sept. 23, 1918	.....
4028	McCall.....	.....	188.16	10.76	198.92	.....	22,901.83	23,190.75	742	Jan. 23, 1911	.....
4253	McCalla.....	43,715.46	873.88	63,417.55	108,006.89	9,831.25	9,889.03	127,777.18	1,215	May 19, 1919	12
4276	McCalla, ley.....	135,390.26	3,945.75	100,648.12	245,954.13	33,139.34	4,399.76	283,493.23	1,215	Sept. 22, 1919	12
4272	McCook.....	53,572.65	3,556.13	58,420.26	115,549.04	5,947.97	9,116.78	130,613.79	1,215	Apr. 30, 1919	12
4262	McDermut.....	40,091.26	1,361.80	47,806.07	89,239.13	15,490.12	80,969.08	191,718.33	1,215	Mar. 20, 1919	12
4054	McDougall.....	50,621.60	568.12	27,825.69	79,015.81	83,620.81	190,203.00	358,936.62	1,020	Jan. 16, 1914	12
4237	McFarland.....	89,250.76	5,140.92	70,833.32	165,274.00	295,156.18	9,950.68	470,389.86	1,215	Sept. 30, 1920	12
4050	McKean.....	50,456.62	2,203.95	59,109.17	111,769.74	58,686.49	11,203.26	181,759.49	1,185	Feb. 25, 1919	12
4087	McKee.....	38,723.13	542.44	60,655.08	99,930.65	13,478.78	77,332.57	190,712.00	1,185	Sept. 7, 1918	12
4264	McLannahan.....	37,933.79	1,443.56	35,817.73	75,215.08	8,822.48	1,414.38	85,801.83	1,215	Apr. 5, 1919	12
4223	McMormick.....	81,050.40	1,056.33	114,734.35	196,841.08	285,917.92	1,744.27	484,173.48	1,215	Aug. 30, 1920	10
4371	McDonough.....	59,889.00	1,620.87	70,574.44	132,031.31	13,832.65	54,070.46	230,580.20	1,215	Apr. 30, 1921	12
4325	Meade.....	46,171.47	71.80	7,106.47	7,181.27	189,617.59	711.49	197,533.35	1,215	Sept. 8, 1919	.....
4165	Melvin.....	124,821.12	738.69	34,791.39	81,701.55	14,277.06	29,757.49	125,730.10	1,185	June 29, 1919	12
4279	Meredith.....	.....	105,813.82	232,230.58	232,230.58	65,068.37	2,318.92	260,647.87	1,215	Dec. 17, 1919	12
4032	Meyer.....	.....	1,505.64	1,840.88	1,905.84	39.00	2,038.18	3,581.02	742	June 21, 1911	.....
4121	Monaghan.....	79,373.60	1,557.40	86,800.07	167,731.07	9,001.39	7,14.07	184,446.53	1,213	Jan. 26, 1918	12
4277	Montgomery.....	120,835.39	1,801.83	98,623.36	221,260.58	78,905.56	3,144.84	303,311.98	1,215	Dec. 10, 1919	12
4271	Morris.....	67,963.69	3,150.96	79,206.36	130,321.01	13,467.85	64,967.36	227,886.22	1,215	July 21, 1919	12
4105	Mugford.....	110,969.26	1,664.75	53,345.33	165,979.34	4,885.43	26,307.91	197,172.68	1,185	Nov. 25, 1917	12
4325	Mullany.....	.....	6.72	31,222.57	31,229.29	213,882.68	881.36	245,962.84	1,215	Mar. 29, 1921	.....
4097	Murray.....	145,817.78	1,673.36	134,163.60	291,654.74	13,099.68	140,500.37	435,264.79	1,185	Aug. 21, 1918	.....
4311	Nicholson.....	17,623.82	255.01	40,701.84	58,583.67	212,765.87	2,056.24	273,493.76	1,215	Nov. 23, 1920	7
4092	Nicholson.....	57,014.17	770.18	33,462.20	91,246.55	52,380.54	26,962.96	169,720.05	1,050	Apr. 30, 1915	12
4343	No.....	21,138.01	302.40	69,015.19	93,455.60	195,452.65	3,123.37	292,031.32	1,215	Feb. 15, 1921	4
4177	O'Hannon.....	68,175.27	1,100.36	54,740.98	121,017.11	6,419.99	65,449.75	106,086.85	1,191	Aug. 27, 1919	12

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
DESTROYERS—continued.											
4207	Southard	\$124,897.87	\$5,257.52	\$126,197.33	\$256,352.72	\$44,301.95	\$20,532.06	\$321,186.73	1,215	Sept. 24, 1919	12
4173	Sposton	99,662.93	1,851.39	55,258.03	156,802.35	11,181.92	64,640.96	232,625.23	1,191	July 12, 1919	12
4180	Spansbury	48,107.14	1,416.71	66,717.42	116,241.27	23,237.63	62,898.37	202,377.27	1,191	Jan. 8, 1920	12
4027	Stevett			92.24	92.24		6,855.60	6,947.84	742	Dec. 15, 1910	12
4086	Stevens	46,793.36	733.35	51,530.91	99,077.62	17,734.05	91,425.03	208,236.70	1,191	May 24, 1918	12
4224	Stewart	45,702.07	764.28	72,646.70	119,113.05	315,426.54	31,296.60	465,836.19	1,215	Sept. 15, 1920	9
4073	Stockton	65,954.58	919.35	78,413.94	144,397.87	13,453.50	92,418.46	250,290.83	1,125	Nov. 26, 1917	12
4302	Stoddert	107,784.06	1,060.24	130,448.86	239,293.16	211,187.50	6,468.51	456,940.17	1,215	June 30, 1920	12
4096	Stirling	67,168.97	1,174.97	70,480.41	138,824.35	9,255.05	20,650.92	168,738.32	1,191	Aug. 16, 1918	12
4083	Stirlingham	55,433.16	1,232.42	38,371.88	95,037.46	14,512.75	68,792.20	178,342.41	1,191	July 2, 1918	12
4240	Sturtevant	96,770.56	1,019.26	90,926.86	188,719.68	308,621.28	5,120.47	502,461.43	1,215	Sept. 2, 1920	9
4333	Summer					144,437.17		144,437.17			
4273	Swasey	68,076.01	2,443.32	81,944.36	152,463.69	23,095.95	76,474.44	252,034.08	1,215	Aug. 8, 1919	12
4114	Talbot	68,541.20	1,267.87	74,004.31	143,812.78	66,213.05	77,642.92	287,698.75	1,154	July 20, 1918	12
4156	Talbot, J. Fred	83,712.24	2,537.90	96,187.01	182,497.15	15,779.64	31,352.96	229,569.75	1,154	June 30, 1919	12
4142	Tarbell	82,256.24	1,539.09	157,708.39	240,117.72	28,962.74	50,966.11	319,708.57	1,154	Nov. 27, 1918	12
4125	Tatnall	135,146.46	2,836.22	161,974.10	299,956.78	7,321.97	23,354.79	330,633.54	1,211	June 26, 1919	12
4094	Taylor	53,949.11	1,075.96	66,349.95	121,374.72	15,174.80	30,210.52	166,760.04	1,154	June 1, 1918	12
4025	Terry		264.05	11.20	275.25	22.21	5,171.81	5,469.27	742	Oct. 18, 1910	12
4162	Thatcher	28,936.15	527.17	42,701.47	72,164.79	22,825.87	3,684.94	98,675.60	1,191	June 14, 1919	12
4182	Thomas	69,096.62	4,070.15	46,870.56	120,637.33	5,208.74	46,714.42	172,560.49	1,213	Apr. 25, 1919	12
4305	Thompson	94,843.51	844.36	127,228.43	222,916.50	188,883.18	2,386.07	414,185.75	1,215	Aug. 16, 1920	10
4270	Thornbton	3,443.61	3,443.61	65,308.61	116,229.89	45,270.46	92,067.35	254,167.70	1,215	July 15, 1919	12
4135	Tillman	10,157.44	569.60	4,059.87	13,857.91	10,197.71	41.24	24,096.06	1,154	Apr. 30, 1921	12
4272	Tingey	60,420.41	2,824.12	73,344.40	136,288.93	10,002.25	59,894.53	200,153.71	1,213	July 25, 1919	12
4282	Tooney	84,633.44	1,844.17	77,410.41	163,888.02	32,632.11	22,442.62	218,982.65	1,215	Dec. 9, 1919	12
4212	Tracy	101,096.57	2,871.29	83,244.69	187,212.55	57,621.99	3,973.06	248,807.60	1,215	Mar. 9, 1920	12
4339	Trepper			169.09	169.09	41.82	6,775.10	6,816.92	742	Mar. 23, 1911	12
4033	Tripp		333.52	32,298.85	52,329.03	309,772.20	8,255.16	370,356.39	1,215	Feb. 16, 1921	4
4229	Truxton	46,486.84	753.26	27,574.81	74,814.91	1,943.54	19,350.38	96,108.83	1,090	Apr. 1, 1916	32
4057	Turner	51,463.73	1,240.12	64,098.65	116,712.50	38,786.10	85,886.86	239,385.46	1,215	Sept. 24, 1919	12
4259	Turner	80,118.67	741.91	64,569.40	130,429.98	7,818.91	59,094.77	197,943.66	1,211	July 28, 1919	32
4127	Twigg										

41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	41,397.84	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1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alteration to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
DESTROYERS.										
4132	Aaron Ward.	\$26,405.33	\$632.85	\$43,843.38	\$70,881.56	\$10,107.23	\$68.47	\$81,057.26	92	
4184	Abbott.	16,291.99	402.80	29,165.70	45,860.49	1,083.64	17,087.65	64,641.76		
4211	Alden.	26,739.59	773.49	30,269.83	57,782.91	2,191.25	54.17	60,028.33	92	
4086	Allen.	16,396.59	563.64	14,389.74	31,349.97	545.81	453.66	32,346.44		
4035	Ammen.						222.73	222.73		
4172	Anthony.	25,235.36	810.49	20,775.28	46,821.13	689.90	5,878.10	53,360.13	92	
4258	Antick.	10,536.05	382.64	13,398.46	24,317.15	1,218.60	53.24	25,452.51		
4294	Ausburne, Charles.	16,451.28	228.60	22,352.66	39,032.54	683.43	32.09	39,748.09		
4047	Aylwin.						1,112.65	1,112.65		
4128	Babbitt.	21,429.76	215.10	19,224.15	40,869.01	1,935.31	494.65	43,268.97		
4126	Badger.	23,204.14	242.17	20,225.01	43,671.32	3,074.40	714.16	47,459.88		
4196	Badger, George E.	16,147.52	231.12	3,328.17	19,706.81	644.50	45,789.02	66,140.33		
4185	Bagley.	15,938.64	471.10	17,063.79	33,503.53	428.27	5,794.29	39,726.09		
4269	Bailey.	22,303.91	741.95	31,434.94	54,480.80	3,038.93	441.02	57,960.75		
4246	Bainbridge.	16,521.11	531.12	13,820.90	30,873.13	4,571.39	981.13	36,425.65		
4050	Bach.	12,767.62	222.45	19,983.79	32,853.89	3,867.91	111.58	36,883.38		
4286	Baincroft.	12,594.99	308.74	10,307.58	23,201.31	2,346.67	55,533.72	81,081.70		
4287	Ballard.	11,548.30	611.96	8,619.76	17,780.04	10,265.57	1,241.46	29,317.07	92	
4213	Barber.	30,468.51	241.44	50,523.80	81,253.85	1,226.67	9,814.27	92,297.79	92	
4149	Barney.	25,383.78	205.62	36,117.64	61,707.04	4,088.63	260.40	65,545.27		
4040	Beale.						147.21	147.21		
4251	Belknap.	16,552.30	727.77	3,749.92	21,039.99	11,986.04	51,063.85	84,089.86		
4066	Bell.	14,190.57	218.94	25,624.76	40,034.27	524.33	1,907.91	42,466.51		
4049	Benham.	13,464.49	170.94	13,283.01	26,920.44	3,514.28	16,316.71	46,751.43		
4163	Bernadou.	28,312.31	282.46	36,355.17	64,929.94	3,620.50	699.27	69,146.71	92	
4161	Biddle.	18,408.65	174.10	20,468.38	39,051.13	1,418.97	1,223.09	41,063.19		
4293	Billingaly.	15,723.70	217.36	26,152.69	42,083.75	1,388.25	1,047.20	44,499.20		
4150	Blackely.	27,864.15	239.62	39,946.99	66,770.76	3,761.15	1,438.70	71,970.61	92	

Brave	25, 103.14	20, 181	21, 108.13	40, 530.28	19, 498.90	92
Brian	24, 820.01	32, 352.90	37, 378.02	57, 378.02	1, 394.19	92
Bullman	23, 627.72	1, 129.05	32, 473.92	52, 200.69	1, 475.87	92
Burns, John Francis	9, 007.42	37, 160	9, 239.64	18, 708.06	863.25	92
Burns	25, 312.90	387.65	36, 712.84	62, 412.98	1, 041.91	92
Burrows		451.06			770.93	78
Bush	14, 584.24		17, 225.15	32, 260.45	406.76	92
Caldwell	14, 040.34	170.06	25, 723.65	39, 763.99	9, 175.55	92
Case	13, 146.58	535.61	24, 466.17	37, 791.81	1, 869.67	92
Caslin	15, 470.80	330.11	12, 992.16	28, 998.57	1, 044.51	92
Chapman	10, 935.91	330.11	7, 890.64	19, 165.70	1, 059.44	92
Chandler	30, 183.13	2, 432.82	39, 115.76	71, 711.71	13, 423.98	92
Chase	11, 108.11	311.70	10, 377.04	21, 796.85	24, 744.64	92
Chauncy	12, 397.44	1, 155.97	4, 312.26	17, 865.67	618.13	28.18
Chew	13, 746.00	983.18	11, 275.88	25, 960.06	864.61	18, 511.99
Childs	31, 920.57	94.01	13, 606.16	45, 620.74	1, 639.18	26, 828.86
Claxton	17, 556.33	257.00	15, 941.39	33, 754.72	10, 979.44	47, 259.92
Clemson	17, 342.27	154.26	8, 331.72	25, 828.28	2, 096.39	55, 069.12
Coghlan	12, 635.61	253.82	9, 322.21	22, 211.64	4, 474.19	89, 541.39
Cole	19, 953.90	227.54	12, 144.64	31, 435.44	3, 572.90	27, 704.26
Colman	13, 987.91	149.20	16, 427.95	30, 535.06	60, 728.19	66, 238.17
Conner	14, 156.80	40.50	33, 012.68	33, 012.68	59.63	115, 976.15
Conyngham	13, 835.78	40.50	39, 880.45	2, 234.20	43, 120.15	33, 603.06
Converse	19, 173.41	218.28	28, 539.97	47, 931.66	7, 563.53	43, 120.15
Corry	12, 551.98	87.60	21, 694.62	34, 334.20	15, 065.05	49, 719.05
Cowell	15, 379.38	340.26	16, 209.33	31, 928.97	23.68	32, 714.50
Crane	28, 697.37	4, 225.96	16, 892.50	32, 905.41	1, 801.57	58, 344.74
Craven	15, 830.43	182.48	16, 892.50	32, 905.41	3, 048.59	33, 623.32
Cresby	14, 274.54	415.82	8, 000.31	22, 690.67	9, 997.50	35, 736.76
Crowninshield	24, 765.26	246.86	57, 127.78	57, 127.78	61, 448.13	61, 448.13
Cummings	13, 866.16	112.00	32, 115.66	41, 897.04	5, 706.20	48, 997.58
Cushing	27, 012.62	257.00	58, 199.10	85, 468.72	10, 567.44	92
Dalgreen	19, 069.71	250.40	7, 998.95	27, 328.06	88, 216.96	92
Dale	14, 033.45	192.00	15, 784.33	30, 009.78	6, 621.32	35, 459.54
Dallas	19, 121.47	480.55	27, 334.88	46, 938.90	21, 290.34	50, 717.18
Davis	18, 729.08	159.10	18, 231.89	37, 120.07	120.90	47, 742.40
De Long	14, 125.65	461.18	19, 605.88	34, 192.71	68, 131.55	68, 131.55
Delphy	12, 304.92	212.84	21, 498.16	34, 005.92	45, 072.71	45, 072.71
Dent	31, 175.41	274.81	46, 516.31	77, 966.53	538.27	37, 909.24
Declar	30, 129.65	524.81	46, 883.93	6, 530.64	890.02	85, 327.19
Dickerson	13, 891.97	184.20	24, 649.33	5, 372.48	194.48	83, 105.35
Dorsey	18, 967.67	510.81	12, 566.94	4, 486.49	288.02	43, 500.01
Downes		27.16	32, 045.42	2, 000.38	628.02	75, 674.10
Doxen		149.20	3, 618.85	9, 897.73	41, 628.30	288.23
Drayton		168.30	27.16	29, 818.71	23, 067.06	34, 445.31
Duncan		6, 119.68	13, 496.88	9, 897.73	23, 067.06	59, 728.82
Du Pont		16, 163.52	13, 496.88	29, 818.71	24, 699.98	52

Credit.

^a All destroyers operating on 50 per cent complement basis except otherwise shown.

1922—Continued.
[First quarter]—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
DESTROYERS—continued.										
4084	Dyer.....	\$14,022.79	\$517.79	\$12,501.49	\$27,132.07	\$3,762.85	\$3,530.15	\$34,425.17		
4219	Edsall.....	24,404.02	405.38	32,403.94	57,213.94	1,040.22	25.00	58,253.16	92	
4216	Edwards, John D.....	30,291.25	841.11	41,593.19	72,727.55	1,825.15	4,298.00	78,850.79	92	
4265	Edwards.....	12,195.81	474.16	9,363.81	22,033.78	10,447.86	26.61	32,508.27		
4146	Elliot.....	29,085.76	198.60	45,025.71	74,310.97	104,584.01	4.91	178,989.69		
4154	Ellis.....	19,603.33	208.70	12,916.02	32,719.05	10,765.08	2,830.03	40,576.00		
4056	Ericsson.....	13,145.51	292.00	19,543.48	32,688.99	748.92	131.68	33,560.54	92	
4078	Evans.....	27,017.58		37,648.71	64,968.29	11,448.92	27.03	76,434.24		
4063	Fairfax.....	14,676.69		18,987.33	33,846.11	17,357.13	40,180.77	91,384.01		
4037	Fanning.....		6.00		6.00		188.52	194.52		
4332	Farenholt.....	15,939.23	204.78	22,521.98	38,665.96	7,815.76	934.07	47,415.82		
4304	Farquhar.....	20,764.36	322.76	37,421.84	58,508.96	1,039.72	246.89	59,795.57	92	
4300	Farragut.....	9,909.42	356.98	6,892.57	17,157.97	1,591.70	8.73	18,758.40		
4029	Flusser.....					29.51		29.51		
4029	.....do.....	15,541.59	190.86	44,381.82	60,104.27	1,162.57	450.58	61,717.42		
4100	Foote.....	13,068.73	243.64	17,080.56	30,342.93	2,919.59	2,096.61	35,352.13		
4100	.....do.....	20,037.76	485.70	16,921.04	37,444.50	* 68,492.81	34,496.67	3,448.36		
4100	For, John D.....	35,017.47		38,713.67	71,731.14	833.40	180.13	72,824.67	92	
4100	.....do.....	11,097.97	362.74	11,670.14	23,130.85	* 357.03	67.51	22,841.33		
4260	Fuller.....	18,145.43	314.78	15,940.11	34,400.32	754.74	2,100.87	37,264.93		
4223	Gamble.....	28,379.97	211.84	18,339.96	31,921.77	3,940.31	14.92	36,777.00	92	
4247	Gillmer.....	26,325.64	869.48	19,528.20	49,722.32	1,240.51	* 85.00	50,913.88		
4188	Goff.....	16,963.04	260.18	6,820.48	23,773.70	5,969.34	2,096.60	30,942.94		
4192	Goldsborough.....	26,853.80	370.90	51,971.67	79,196.37	1,971.01	1,181.37	82,318.75	92	
4192	Graham.....	29,165.51	347.14	49,110.36	77,623.01	1,504.31	1,179.08	78,948.24		
4266	Greene.....	11,368.07	599.29	7,466.87	19,373.23	9,964.86	1,109.00	30,437.11		
4145	Greer.....	33,779.83	1,757.47	42,390.14	77,977.14	3,008.49	637.22	83,170.81		
4082	Gregory.....	14,292.96	280.97	23,908.91	38,432.84	3,068.82	316.05	41,841.71		
4071	Grady.....	13,145.90	210.68	24,040.41	37,396.99	1,510.04	297.57	39,174.00		
4071	Gwyn.....	15,566.07	494.00	24,096.02	40,049.09	2,077.60	1,442.89	43,600.58		
4071	.....do.....	16,000.00	207.00	14,787.73	37,000.00	4,197.43	1,777.00	43,600.58		

17, 097.16	336.14	22, 394.68	36, 815.00	1, 914.38	37, 457.72	78, 191.11	85, 994.77
18, 200.94	251.77	42, 997.39	66, 008.97	2, 504.73	2, 504.73	70, 633.11	85, 811.01
19, 071.46	205.60	21, 780.43	40, 276.97	1, 750.73	3, 220.73	45, 365.43	283.86
20, 403.00	1, 122.30	7, 750.63	29, 275.92	2, 018.30	1, 018.30	30, 305.30	
21, 512.82	316.92	22, 571.19	35, 827.77	2, 152.75	2, 073.71	46, 186.03	
22, 967.53	4, 513.55	44, 301.25	78, 802.32	6, 461.98	11, 003.61	86, 628.85	
23, 156.98	712.20	21, 221.65	33, 083.83	1, 055.45	1, 014.96	86, 878.26	
24, 614.22	774.28	26, 491.15	43, 057.34	1, 204.52	2, 33	34, 151.81	
25, 904.71	97.05	54, 724.94	69, 026.70	1, 817.02	374.77	44, 065.43	
26, 968.41	232.60	9, 373.76	25, 505.35	7, 789.47	405.52	53, 522.23	
27, 028.91	831.40	23, 577.04	49, 455.35	694.20	244.05	71, 087.78	
28, 618.37	556.30	12, 432.15	25, 606.72	456.55	37, 643.31	80, 770.86	
29, 494.93	506.84	12, 865.75	25, 867.52	675.09	461.91	90, 381.57	
30, 664.89	18, 064.89	26, 534.35	37, 868.16	2, 614.26	3, 709.86	20, 149.74	
31, 589.46	245.10	18, 064.55		3, 220.21	413.49	41, 540.86	
32, 997.52	1, 036.41	27, 204.80	60, 242.03	401.03	491.31	49, 31	
33, 491.83	4, 78.18	17, 306.71	31, 277.72	284.72	250.03	60, 863.09	
34, 255.40		29, 438.81	45, 962.89	2, 588.48	1, 656.26	50, 207.63	
35, 782.32	137.72	14, 963.49	42, 883.35	1, 286.93	44, 516.98	66, 700.85	
36, 300.45	187.55	36, 300.45	57, 724.32	8, 860.53	107.00	85, 501.78	
37, 861.15	211.80	7, 861.15	28, 143.09	3, 366.92	8, 710.71	40, 220.72	
38, 449.98	14, 794.70	18, 103.12	33, 292.71	1, 883.98	325.19	35, 501.78	
39, 271.58	6, 297.35	6, 297.35	20, 418.91	24, 942.15	212.64	45, 573.20	
40, 923.23	247.82	8, 183.92	22, 340.97	3, 468.97	6, 141.29	31, 951.23	
41, 695.64	554.16	13, 893.89	31, 118.69	1, 848.53	20, 788.96	53, 763.18	
42, 757.19	114.64	11, 746.02	31, 617.85	1, 333.58	1, 112.51	34, 063.94	
43, 587.27	102.17	24, 410.48	39, 399.92	1, 593.63	986.36	41, 979.91	
44, 588.60	10, 588.60	9, 760.59	20, 486.81	36, 323.09	941.27	57, 751.17	
45, 548.93	13, 319.37	12, 501.60	28, 050.53	1, 817.17	4, 264.94	32, 474.88	
46, 590.29	10, 033.50	11, 746.51	25, 341.86	1, 007.50	1, 394.80	27, 543.83	
47, 548.93	430.70	6, 102.30	18, 396.67	733.27	1, 732.28	21, 136.45	
48, 486.66	42.94	11, 814.85	22, 279.05	1, 712.96	2, 270.66	23, 270.66	
49, 684.54	402.10	51, 407.33	81, 936.93	11, 737.23	94, 129.65	65, 401.83	
50, 388.54	388.54	9, 967.82	22, 669.82	8, 511.63	787.91	32, 184.59	
51, 812.89	11, 428.09	25, 647.13	36, 148.03	2, 047.92	1, 003.14	32, 184.59	
52, 905.19	19, 961.01	32, 794.00	38, 148.03	5, 541.98	1, 240.73	39, 438.12	
53, 343.44	1, 001.83	32, 794.00	38, 148.03	5, 541.98	1, 240.73	39, 438.12	
54, 16.14.34	570.10	10, 999.71	27, 814.05	5, 098.13	2, 556.74	67, 290.75	
55, 548.93	27, 337.80	15, 540.65	43, 448.55	1, 795.58	32, 270.58	62, 704.71	
56, 548.93	33, 544.49	8, 962.82	42, 740.53	1, 673.68	17, 460.58	44, 448.65	
57, 154.43	211.50	23, 783.42	50, 159.35	1, 461.21	34.44	51, 630.56	

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1922 - Continued.
[First quarter] - Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complement in reserve or ordinary.	Days out of commission.
DESTROYERS continued.											
4168	Maddox.	\$17,283.63	\$385.60	\$11,708.10	\$29,387.33	\$1,126.67	\$6,447.86	\$36,941.86			
4102	Mahan.	29,120.94	189.50	9,476.17	38,786.61	1,008.08	540.64	40,335.33	92		
4074	Manly.	16,549.71		16,392.13	32,941.74	2,307.30	1,189.44	36,438.48			
4321	Marcus.	10,068.70	530.22	5,322.20	15,921.12	25,135.71	1,322.44	42,379.27			
4191	Mason.	28,940.11	245.66	45,285.82	74,471.50	2,623.00	1,175.31	78,269.90	92		
4081	Mayrant.						232.36	232.36			92
4100	Mauzy.	19,173.95	119.68	16,252.34	35,545.97	529.71	390.75	36,466.43			
4028	McCall.						140.62	140.62			92
4253	McCall.	12,887.89	379.72	11,009.26	24,276.87	4,220.89	48,346.04	76,943.90			
4276	McCall.	16,384.65	268.64	22,970.47	39,623.76	2,691.28	55,401.33	97,716.37			
4252	McCook.	14,041.83	406.48	7,501.46	21,949.77	5,619.69	45,437.47	73,006.93			
4292	McDermitt.	13,662.49	451.33	15,706.29	29,820.11	2,518.23	696.88	33,035.22			
4054	McDougall.	29,286.23		43,764.92	70,001.15	4,744.32	378.03	75,123.50			
4237	McFarland.	26,346.25		4,335.19	34,260.07	1,091.50	378.03	35,451.76	92		
4090	McKen.	16,963.30	241.60	17,040.18	33,245.08	1,402.73	2,351.75	35,999.56			
4294	McKee.	14,295.95	323.45	17,178.07	31,797.47	59,344.50	8,576.76	99,718.73			
4223	McLeahlan.	17,031.14	620.54	6,135.40	23,787.08	1,313.48	1,313.48	25,972.12	92		
4331	MacDonough.	26,063.95	1,076.97	38,209.09	65,402.63	809.49	676.65	66,925.17			
4274	Meade.	16,763.68	430.79	35,022.16	52,217.63	3,846.01	96,751.57	96,751.57			
4336	Melvin.	11,299.94	124.56	16,466.33	27,890.83	10,398.94	356.17	38,986.94			
4166	Meredith.	13,001.82	163.74	15,628.22	28,993.88	1,825.16	13.60	30,832.64			
4322	Mervine.	13,079.05	412.34	12,868.60	26,359.89	2,582.71	166.71	52,068.31			
4279	Meyer.	14,375.27	574.26	27,616.83	42,566.36	1,130.97	36,265.24	79,962.57			92
4032	Monaghan.						302.08	302.08			
4121	Montgomery.	17,474.85	106.00	18,514.83	36,094.68	1,228.63	929.07	38,252.38			
4271	Moody.	17,473.62	347.01	24,496.57	42,307.20	1,612.70	42,996.52	87,116.42			
4271	Morris.	15,462.31	478.96	27,751.26	43,712.53	12,096.93	2,317.81	58,126.27			
4106	Mugford.	16,253.87	257.66	15,767.68	32,279.21	1,168.88					

4101	Payroll	1,121.79	12,577.25	50,428.97	9,448.41	5,790.99	66,137.17		
4102	Payroll	73.44	26,317.25	50,428.97	9,448.41	35,402.54	110,476.64	92	
4103	Payroll	30.65	14,577.82	20,872.87	2,810.58	245.19	31,407.24		
4104	Payroll	667.37	74,596.28	109,813.08	2,810.58	8,255.73	43,207.91		
4105	Payroll	92.00	10,836.94	21,138.29	8,544.96	498.76	58,534.63	92	
4106	Payroll	404.48	21,454.78	34,223.27	1,683.26	396.46	2,768.46		92
4107	Payroll		2,400.00	2,400.00					92
4108	Payroll	330.14	19,313.64	34,901.66	3,923.95	1,004.90	39,832.50		92
4109	Payroll	307.20	15,701.74	33,124.28	2,888.17	33,405.70	69,418.24		92
4110	Payroll	382.42	6,958.68	17,909.58	639.39	700.47	19,246.44		92
4111	Payroll		22.50	22.50		3.20	25.70		92
4112	Payroll	785.32	32,867.85	55,840.62	228.32	584.71	813.03		92
4113	Payroll	373.29	23,346.75	42,782.21	2,534.34	981.35	56,927.26		92
4114	Payroll	209.70	14,101.08	32,100.64	1,847.12	3,874.57	49,191.12		92
4115	Payroll	199.80	28,512.24	42,429.95	491.60	35,476.85	69,424.61		92
4116	Payroll	285.90	36,171.41	60,674.57	8,587.73	1,159.00	44,081.15		92
4117	Payroll	194.04	45,761.15	70,007.28	6,856.24	885.57	69,663.55		92
4118	Payroll	93.70	6,972.77	16,331.01	6,294.66	817.68	71,746.09		92
4119	Payroll	212.96	17,290.91	39,088.96	601.16	5,558.78	23,433.35		92
4120	Payroll	331.43	15,650.78	34,194.76	598.02	1,843.70	36,638.49		92
4121	Payroll	313.52	11,933.20	31,253.70	3,965.73	1,061.93	36,278.26		92
4122	Payroll	346.82	18,000.79	37,457.97	1,864.89	1,365.57	40,728.43		92
4123	Payroll	323.78	41,373.35	74,237.35	15,390.20	2,250.96	91,578.41		92
4124	Payroll	342.29	11,725.80	28,991.50	5,106.87	23,871.81	57,969.18		92
4125	Payroll	362.29	32,704.54	53,771.99	1,037.81	41.97	54,851.77		92
4126	Payroll	361.30	19,402.12	40,807.09	3,047.80	118.30	43,972.69		92
4127	Payroll	194.82	14,210.56	43,722.38	2,276.04	12,477.92	56,704.54		92
4128	Payroll	194.82	23,319.75	38,490.15	272.18	1,072.60	39,794.93		92
4129	Payroll	8,493.01	21,458.49	32,665.35	866.75	43.24	93,573.24		92
4130	Payroll	184.10	10,238.23	33,983.38	862.27	496.17	35,363.52		92
4131	Payroll	830.62	17,783.08	34,134.73	1,287.79	54.18	35,468.70		92
4132	Payroll	229.40	31,521.13	63,988.40	17,685.30	1,655.33	83,328.28		92
4133	Payroll	197.88	26,142.43	41,026.12	1,770.87	4,066.33	43,183.22		92
4134	Payroll				909.10	4,064.33	38,781.67		92
4135	Payroll	98.78	5,082.75	38,781.67	2,448.83	3,696.06	80,668.96		92
4136	Payroll	327.00	49,129.76	74,521.07	3,044.10	192.16	71,090.28		92
4137	Payroll	369.36	9,102.93	25,223.53	635.10	78.81	25,937.45		92
4138	Payroll	299.98	7,226.35	18,748.78	25,364.45	822.22	44,938.45		92
4139	Payroll	151.50	52,466.76	79,843.08	1,235.06	2,963.57	83,741.71		92
4140	Payroll	371.55	13,675.31	27,496.20	1,049.91	2,741.62	25,854.58		92
4141	Payroll	481.53	19,324.26	31,903.16	1,043.00	623.11	36,569.27		92
4142	Payroll	327.56	6,134.30	17,349.98	4,317.24	1,788.59	21,808.11		92
4143	Payroll	9,141.13	10,060.21	30,631.12	10,331.27		42,750.98		92

(Credit.

1922—Continued.
[First quarter]—Continued.

No.	Name of vessel.	Title C.			Total operat- ing expenses.	Equipage.	Repairs and alterations to ships, includ- ing equipage.	Total main- tenance and operation.	Status.		
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including provisions.					Days in full com- mission.	Operating with re- duced com- plements in reserve or ordinary.	
DESTROYERS—continued.											
4346	Seward.....	\$25,276.02	\$135.00	\$32,200.63	\$57,611.65	\$3,024.80	\$5,506.77	\$96,143.31	92		
4081	Sigourney.....	15,501.09	55.76	16,175.03	31,731.88	1,559.89	58,123.03	91,414.80			
4221	Simpson.....	26,678.72	451.46	44,912.49	72,042.67	2,206.64	35.00	74,284.31	92		
4275	Sinclair.....	21,119.69	324.59	12,774.95	34,219.23	3,197.63	64,669.43	102,086.29			
4316	Sloat.....	10,385.80	406.08	8,609.53	19,401.51	4,374.11	155.05	23,930.67			
4324	Smith, Robert.....	9,772.85	294.70	4,056.01	14,123.56	24,968.98	825.01	39,917.55			
4212	Smith, Thompson.....	26,965.99	44,853.24	38,378.51	110,197.74	2,871.10	7,987.86	121,066.70	92		
4301	Some's.....	16,670.30	428.47	9,097.17	26,195.94	560.86	61.63	26,818.43			
4207	Southard.....	28,182.23	167.60	36,283.66	64,643.49	6,772.69	139.99	71,556.17	92		
4173	Sproston.....	24,409.51	418.81	24,188.58	49,016.90	962.90	4,590.66	54,500.46	92		
4180	Stansbury.....	21,558.38	1,206.77	15,441.38	38,206.53	2,524.91	97.63	40,829.07			
4027	Stearett.....	12,361.23	180.40	180.40	180.40		64.06	244.46	92		
4086	Stevens.....	20,242.49	171.95	14,198.10	26,728.28	1,186.25	3,694.61	31,609.14			
4224	Stewart.....	14,671.63	491.23	20,677.94	41,411.65	1,097.62	4,361.98	47,471.25			
4073	Stockton.....	23,184.45	84.71	25,354.84	40,111.18	43,567.44	2,184.97	86,883.59			
4302	Stoddert.....	25,192.19	212.40	30,996.03	64,332.88	8,335.80	52.92	62,721.60	92		
4086	Stringham.....	14,207.32	223.12	30,411.63	65,826.94	5,856.72	33,740.93	95,423.59			
4063	Stringham.....	14,207.32	153.55	17,000.60	31,361.47	1,867.24	19,149.07	52,097.78			
4240	Sturtevant.....	32,341.22	49.83	19,944.66	52,335.71	1,935.81	7.75	57,263.77	92		
4333	Sumner.....	10,864.75	736.88	39,166.26	50,777.89	13,916.83	158.28	64,933.00			
4273	Swasey.....	19,231.19	791.74	28,398.16	48,506.09	4,866.34	130.32	53,294.75			
4114	Talbot.....	32,261.62	425.33	35,265.62	67,962.57	6,049.13	1,446.89	75,448.59	92		
4156	Talbot, J. Fred.....	14,330.80	191.12	12,538.73	27,090.65	3,427.48	38,500.29	68,998.42			
4142	Talbell.....	30,401.66	41.60	42,033.21	72,446.47	10,599.98	935.70	83,972.15			
4125	Tatnell.....	21,209.19	604.75	27,510.55	49,324.49	2,260.81	29,713.28	81,298.58			
4094	Taylor.....	16,066.12	286.08	15,103.91	31,426.11	7,039.60	17,644.63	56,110.24			
4025	Terry.....	12,203.67	511.06	10,309.51	23,024.24	1,470.85	12,866.73	37,364.82		92	
4182	Thatcher.....	12,676.61	497.04	99,817.54	27,170.41	2,995.45	6,640.41	46,669.91			
4192	Thomson.....	12,676.61	497.04	99,817.54	27,170.41	2,995.45	6,640.41	46,669.91			

	25, 26, 27, 28	41, 42, 43, 44	63, 64, 65, 66	133, 287, 288	4, 5, 6, 7, 8, 9, 10, 11	904, 13	904, 13	92
4033						3.29	1,331.01	92
4034						8,597.77	43,445.27	92
4035						24,493.95	23,822.50	92
4036						1,831.18	43,920.36	92
4037						9,161.27	56,409.03	92
4038						392.38	83,811.43	92
4039						58.00	38,097.68	92
4040						18,127.30	42,434.43	92
4041						545.88	38,093.86	92
4042						423.48	38,704.78	92
4043						9,452.53	56,846.07	92
4044						7,133.67	28.08	92
4045						28.08	651.39	92
4046						1,718.73	83,300.28	92
4047						39.92	41,485.41	92
4048						12,043.67	49,234.60	92
4049						10,415.40	144,544.51	92
4050						20.79	61,197.35	92
4051						244.88	34,050.96	92
4052						77.70	19,373.31	92
4053						63	36,063.79	92
4054						12,064.63	43,913.73	92
4055						222.19	23,916.37	92
4056						145.37	34,935.47	92
4057						5.26	51.26	92
4058						1,411.99	50,294.65	92
4059						7,490.11	15,881.65	92
4060						1,641.97	70,721.97	92
4061						1,998.73	23,722.65	92
4062						846.19	48,345.36	92
4063						790.46	53,111.66	92
4064						128.33		92
Total	5,495,384.52	264,669.52	6,436,532.79	12,196,586.83	1,340,270.32	1,784,946.54	15,321,703.69	

* Credit.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
COAST TORPEDO VESSELS.											
204	Rainbridge.	\$44,942.15	\$2,165.17	\$46,309.41	\$83,416.73	\$3,477.73	\$96,894.46	420	Nov. 24, 1902	12	
205	Barry.	41,309.09	366.32	33,079.86	74,755.27	14,151.89	88,907.16	420	Nov. 20, 1902	12	
206	Chauncy.	43,387.97	140.95	37,511.67	81,040.59	21,835.63	102,876.22	420	Nov. 20, 1902	12	
207	Dale.	46,821.73	291.96	36,632.67	83,746.56	6,264.60	90,011.16	420	Nov. 24, 1902	12	
208	Decatur.	41,964.26	496.17	35,336.72	77,767.17	32,839.40	110,606.57	420	May 19, 1902	12	
209	Hopkins.	32,931.42	206.76	31,434.13	64,572.31	17,738.60	82,310.91	408	Sept. 23, 1903	12	
210	Hull.	34,671.43	313.35	33,562.83	68,547.61	14,336.88	82,884.49	408	May 20, 1903	12	
200	Lawrence.	28,890.26	279.17	21,641.06	50,810.51	1,863.94	52,704.45	400	Apr. 14, 1903	12	
201	Macdonough.	32,920.92	392.69	23,569.89	56,885.47	15,342.59	72,226.09	400	Sept. 5, 1903	12	
209	Paul Jones.	32,205.52	729.90	47,620.05	100,855.47	31,498.90	132,344.37	420	July 10, 1902	12	
210	Perry.	43,675.55	906.80	42,668.63	87,150.98	24,572.81	111,723.79	420	Sept. 4, 1902	10	
211	Preble.	47,350.99	147.45	43,062.74	90,561.18	29,434.94	119,996.12	420	June 21, 1902	10	
212	Stewart.	52,433.73	129.00	55,245.75	107,808.14	17,378.71	125,186.85	420	Dec. 17, 1902	2	10
213	Truxtun.	33,931.73	288.01	28,483.25	62,702.99	13,248.46	75,951.45	433	Sept. 11, 1902	1	11
214	Whipple.	47,640.95	437.92	43,710.72	91,834.59	28,260.34	120,098.93	433	Oct. 21, 1902	12	
215	Worden.	34,536.07	52.70	30,726.86	65,315.63	7,787.91	73,103.54	433	Dec. 31, 1902	12	
Total.		639,662.47	7,214.32	590,496.44	1,257,773.23	280,053.33	1,537,826.56				
Equipage.							364,466.64				
Total.							1,922,293.20				

No.	Name of vessel.	Accrued pay.	Title C.	Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
COAST TORPEDO VESSELS— DESTROYERS.											
4001	Bainbridge.....		\$945.83	\$33,138.84	\$34,084.67	\$129.20	\$2,202.82	\$36,416.69	420	Nov. 24, 1902	.....
4002	Barry.....			41,614.20	41,614.20	1,498.50	38.63	43,074.07	420	..... do.	.....
4004	Dale.....			19,081.96	19,107.96	1,330.50	31,462.40	50,900.86	420	Oct. 24, 1902	.....
4005	Decatur.....		26.00	34,198.14	34,251.21	706.00	1,374.85	36,332.06	420	May 19, 1902	.....
4006	Hopkins.....		566.51	2,981.66	3,548.17		1,514.71	3,033.46	408	Sept. 23, 1903	.....
4007	Hull.....		2,617.73	1,230.50	3,848.23		810.35	9,996.51	408	May 20, 1903	.....
4008	Lawrence.....			3,294.70	3,294.70	14,584.89	1,145.86	2,167.99	400	Apr. 14, 1903	.....
4009	Macdonough (Macdonough).....		215.91	2,364.47	2,580.38	19,069.89	3.95	13,465.56	400	Sept. 5, 1903	.....
4010	Paul Jones.....		50.95	517.36	568.31	1,624.61	13.66	2,206.58	420	July 19, 1902	.....
4011	Perry.....		97.19	4,587.63	4,684.82	1,95.00	533.38	4,246.44	420	Sept. 4, 1902	.....
4012	Preble.....		923.16	139.03	1,062.19	3,286.94	11,681.90	16,030.73	420	June 21, 1902	.....
4013	Stewart.....			4,231.02	4,231.02		204.78	4,435.80	420	Dec. 17, 1902	.....
4014	Truxton.....	\$6,306.76		41,315.36	47,622.12	1,522.82	10,220.43	58,365.37	433	Sept. 11, 1903	.....
4015	Whipple.....	35,943.69	162.64	12,899.99	49,006.32	3,325.13	2.02	49,333.47	433	Oct. 21, 1902	.....
4016	Worden.....	16,229.85		4,755.93	20,985.78	1,671.16	86.48	22,743.42	433	Dec. 31, 1902	.....
	Total.....	58,480.30	5,658.99	206,350.79	270,490.08	10,446.67	55,830.66	306,875.07	.....		.....

1916.

Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equiptage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
	Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
COAST TORPEDO VESSELS.										
Bridge.	\$44,942.15	\$2,165.17	\$46,309.41	\$83,416.73	\$3,477.73	\$86,894.46	420	Nov. 24, 1902	12	
	41,300.09	366.32	35,070.86	74,755.27	14,151.89	88,907.16	420	.....do.....	12	
	43,387.97	140.95	37,511.67	81,040.59	21,833.63	102,876.22	420	Nov. 20, 1902	12	
	46,821.73	291.96	36,632.87	83,746.56	6,264.60	90,011.16	420	Nov. 24, 1902	12	
	41,964.28	496.17	35,396.72	77,767.17	32,839.40	110,606.57	420	May 19, 1902	12	
	32,931.42	208.76	31,434.13	64,572.31	17,738.60	82,310.91	408	Sept. 23, 1903	12	
	34,671.43	313.35	35,362.83	68,547.61	14,336.88	82,884.49	408	May 20, 1903	12	
	28,890.28	279.17	21,641.66	50,810.51	1,893.94	52,704.45	400	Apr. 14, 1903	12	
	203.92	392.69	23,369.89	56,883.50	13,342.39	72,226.09	400	Sept. 5, 1903	12	
	272.55	729.90	47,920.05	109,855.47	31,488.90	132,344.37	420	July 10, 1902	12	
		806.80	42,668.63	87,150.96	24,372.81	111,723.79	420	Sept. 4, 1902	10	
		147.45	43,062.74	90,561.18	29,434.94	119,996.12	420	June 21, 1902	12	
	52,433.39	120.00	55,245.73	107,808.14	17,378.71	125,186.85	433	Dec. 17, 1902	2	10
	35,931.73	288.01	28,483.25	62,702.99	13,248.46	75,951.45	433	Sept. 11, 1902	1	11
	17,698.95	437.92	43,710.72	91,838.59	28,260.34	120,098.93	433	Oct. 21, 1902	12	
	34,336.07	52.70	30,726.86	65,313.63	7,787.91	73,103.54	433	Dec. 31, 1902	12	
	639,662.47	7,214.32	590,896.44	1,257,773.23	280,053.33	1,537,826.56				
						384,456.64				
						1,922,283.20				

12

1.1

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
	COAST TORPEDO VESSELS—DESTROYERS.									
4002	Barry.....						\$59.02	\$59.02	1 92	.....
4004	Dale.....						32.74	32.74	1 92	.....
4012	Preble.....						18.00	18.00	.....	..... 92
	Total.....						109.76	109.76		

150 per cent.

No.	Name of vessel.	Accrued pay.	Title C.		Stores issued (including provisions and medical stores).	Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
			Public voucher (including committed rations).	Stores issued (including provisions and medical stores).							Full commission.	Commission in reserve.
TORPEDO BOATS.												
719	Bagley				\$4,573.14	\$8,455.34	\$12,830.57		175	Oct. 18, 1901		
728	Bailey	\$3,882.20			2,445.72	1,358.55	9,932.81		280	June 10, 1901		
720	Barney	2,104.24	\$11.00		2,445.72	5,560.96	5,919.51		175	Oct. 21, 1901		12
721	Biddle	2,407.21	31.80		2,931.11	5,370.12	5,784.41		175	Oct. 26, 1901		
722	Blakely				1,957.42	1,957.42	7,120.63		196	Dec. 27, 1904		
714	Dahlgren		35.00		219.90	254.90	5,172.21		146	June 16, 1900		12
723	De Long		40.00		280.13	300.13	5,086.53		196	Oct. 27, 1902		
717	Dupont		2,162.42		1,778.04	3,940.46	2,512.24		165	Sept. 23, 1897		
727	Farragut	17,492.03	453.23		10,762.71	28,727.97	1,664.08		279	Mar. 22, 1899		
712	Foote		471.94		447.66	919.60	11.50		142	Aug. 7, 1897		12
716	Fox		278.00		303.88	582.88	197.21		154	July 8, 1899		
726	Goldsborough		1,562.86		2,072.10	3,634.96	1,360.13		255	Apr. 9, 1908		12
710	Mackenzie		558.64		246.43	805.07	1,758.29		65	May 1, 1898		
729	Manley (old)					118.70	118.70		30	May 1, 1898		
711	Morris				1,358.49	1,358.49	9,022.61		105	May 11, 1898		12
713	Rodgers		2,073.50		1,392.71	3,466.21	11,014.26		142	Apr. 2, 1898		
724	Shubrick		40.00		285.00	325.00	15,144.24		200	Sept. 21, 1905		12
715	Somers		443.50		272.48	715.98	75.00		150	Mar. 28, 1898	12	
725	Thornton		35.00		231.74	266.74	6,477.40		200	June 9, 1902		
718	Tingey				545.23	545.23	5,631.15		165	Jan. 7, 1904		
	Total	25,885.68	8,197.89		32,103.89	66,187.46	86,519.96	152,707.42				
	Equipage							38,176.86				
	Total							190,884.28				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and rations.	Stores issued, including provisions and medical stores.							
COAST TORPEDO BOATS— TORPEDO BOATS.											
4501	No. 1										
No. 2			\$30.00		\$30.00	\$19.00	\$119.36	\$149.36	142	Apr. 7, 1897	
No. 3				\$9.60	9.60		361.16	380.76	142	Apr. 2, 1898	
No. 4						5.00	76.62	61.62	163	Sept. 23, 1897	
No. 5							191.33	191.33	146	June 16, 1900	
No. 6							166.85	166.85	279	Mar. 22, 1899	
No. 7				170.10	170.10	986.92		1,157.02	105	May 11, 1898	
No. 8				.87	.87		5.79	4.92	256	Apr. 9, 1908	
No. 9				5.96	5.96		239.16	244.82	280	June 10, 1901	
No. 10									150	Mar. 28, 1898	
No. 11									175	Oct. 18, 1901	
No. 12			105.40		105.40		87.60	87.60	175	Oct. 21, 1901	
No. 13							167.43	272.83	175	Oct. 21, 1901	
No. 14							7.86	7.86			
No. 15							86.27	86.27			
No. 16							43.09	43.09			
No. 17				.53	.53		.12	.41			
Total			135.40	196.76	322.16	1,010.92	1,511.10	2,844.18			

[First quarter.]

Name of vessel.	Title (C).			Total main- tenance and operation.	Repairs and alterations to ships, includ- ing equipage.	Equipage.	Total operat- ing expenses.	Status.		Days out of com- mission.
	Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including provisions.					Days in full com- mission.	Operating with re- duced com- plements in reserve or ordinary.	
COA T TORPEDO BOAT—TORPEDO BOAT.										
No. 7.					\$24.00					92
4507					\$24.00					

SUBMARINES.

Mr. KELLEY. How many submarines are carried in the 1916 table?

Mr. REED. Forty-one.

Admiral POTTER. Not counting those building.

Mr. KELLEY. I had a notion we had more than that.

Admiral POTTER. There were a good many building. There were 34 building at that time. The total number, built and building, was 75.

Mr. KELLEY. On page 36 of the report for 1916 the number of submarines is given as 76, does that include the number building?

Mr. REED. Yes, sir; that includes those building.

Mr. KELLEY. How many were built?

Mr. REED. There were 42 in commission and 33 building.

Mr. KELLEY. Forty-two in full commission?

Mr. REED. Yes, sir.

Mr. KELLEY. What was the total expense for the maintenance and operation of the submarines in 1916?

Admiral POTTER. In 1916, \$1,576,616.78.

Mr. KELLEY. How many have you carried on your list for 1921?

Mr. REED. There are 126 that were in commission at some time during the year, but not throughout the entire year. There is a number still building.

Mr. KELLEY. This recapitulation gives the number as 97. That is undoubtedly the number being operated, excluding in this recapitulation those that are building. We must be careful not to get the two things confused.

Col. ROOSEVELT. They come and go. One hundred and twenty-six would represent the total number that were operated at any time during the year.

Mr. KELLEY. I want the total expense of operating and maintaining the submarines. I do not care at this time to inquire about the length of time each one was being operated.

Admiral POTTER. There were charges against 126.

Mr. KELLEY. One hundred and twenty-six are included in the table as being operated in whole or in part during the year 1921?

Admiral POTTER. Yes, sir.

Mr. REED. Either being operated or building. Some charges have been placed against them for assembling equipment.

Mr. KELLEY. We should not go into the building here at all.

Mr. REED. That is true.

Mr. KELLEY. What is the total expense for maintenance and operation of submarines for 1921?

Admiral POTTER. \$9,341,953.23.

Mr. KELLEY. That still includes a little amount for building?

Mr. REED. A few thousand dollars for equipment that has been assembled for the ships that are building.

Mr. KELLEY. If it is not a considerable amount, it will not mislead us at all.

Mr. REED. It is around four or five hundred dollars per ship.

Mr. KELLEY. Do you happen to remember just how many submarines we have completed right now? I mean everything that can be used.

Col. ROOSEVELT. That is a figure that I do not carry with me, but here are 81 that I consider of value.

Mr. KELLEY. Whatever number we have in excess of that are practically obsolete?

Col. ROOSEVELT. The ones we have in excess of that number I consider very second rate.

Mr. KELLEY. You would not want to spend much money on them?

Col. ROOSEVELT. No, sir. I think I can give you that figure. One hundred and twenty-six is the total number, and of that number we are going to scrap 18. There are 27 of the second grade that we are not prepared to scrap, because they may be useful for coast-defense purposes, but they would not be useful for long operations. Eighty-one of them are all right.

Mr. KELLEY. I think I asked you to put the tables in at this point.

Admiral POTTER. Yes, sir.

Mr. KELLEY. But I did not ask you to give the submarine figures for the first three months of 1922.

Admiral POTTER. The total expenditures for submarines during the first quarter of 1922 was \$1,585,930.78.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public voucher (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
SUBMARINES.											
300	A-2	\$10,496.58		\$9,791.65	\$20,261.23	\$3,096.87	\$23,358.10		Jan. 12, 1903	12	
301	A-3	9,506.50	\$7.50	4,571.05	14,065.05	3,346.90	17,431.85		May 28, 1903	12	
302	A-4	9,233.19		6,480.84	15,724.03	2,753.95	18,477.98		Jan. 17, 1903	12	
303	A-5	8,885.20	7.50	14,436.47	23,329.17	5,625.43	28,954.60		May 28, 1903	12	
304	A-6	9,183.27		6,536.35	15,719.62	4,196.79	19,915.41		Sept. 19, 1903	12	
305	A-7	8,560.74		4,632.29	13,193.03	6,053.21	19,246.24		do.	12	
306	B-1	9,110.97	14.25	7,368.73	16,483.95	5,733.59	22,227.54		Oct. 18, 1907	12	
307	B-2	11,176.16	6.95	12,536.38	23,719.49	7,976.78	31,696.27		do.	12	
308	B-3	12,698.37		6,752.35	19,448.72	5,573.60	25,022.32		Dec. 3, 1907	12	
309	C-1	14,843.16		6,851.01	25,498.21	1,676.81	26,174.02		June 30, 1908	12	
310	C-2	14,967.80		8,526.24	26,153.01	1,210.53	26,363.54		Nov. 23, 1909	12	
311	C-3	16,171.69		7,657.56	29,255.24	859.37	30,114.61		do.	12	
312	C-4	14,460.71		10,354.26	26,597.65	1,031.41	29,636.06		do.	12	
313	C-5	16,090.75		22,270.44	41,670.55	19,214.99	42,713.76		Feb. 2, 1910	12	
314	D-1	19,182.13		13,568.85	32,750.98	18,979.07	51,965.97		Oct. 23, 1909	12	
315	D-2	19,851.75		29,426.64	49,197.50	14,940.43	48,405.71		do.	12	
316	D-3	19,145.03		30,052.47	49,197.50	14,940.43	64,137.93		Sept. 8, 1910	12	
317	E-1	25,631.49		16,295.40	38,926.89	61,196.11	100,122.00		Feb. 14, 1912	12	
318	E-2	12,057.20		1,693.03	13,750.23	31,990.99	46,741.22		do.	9	
319	F-1	14,025.00		2,661.41	17,286.41	7,703.35	24,989.76		June 19, 1912	9	
320	F-2	13,036.15		2,149.00	15,185.15	7,559.59	22,744.74		June 26, 1912	9	
321	F-3	14,666.77		2,026.92	16,696.69	7,977.88	24,604.57		Aug. 5, 1912	9	
322	F-4	6,242.48	9.00	8,524.26	14,775.74	4,394.62	19,160.36		May 3, 1913	2	
323	G-1	27,390.28		15,152.90	37,533.18	20,847.81	58,380.99		Oct. 28, 1912	12	
324	G-2	27,003.58		14,640.88	42,644.46	12,112.43	54,356.89		Feb. 6, 1915	12	
325	G-3	20,129.79		5,025.50	26,550.29	1,968.11	28,418.40		Mar. 22, 1915	12	
326	G-4	18,466.90	1,395.00	16,296.39	34,753.29	23,260.62	58,013.91		Jan. 22, 1914	12	
327	H-1	20,810.84		8,842.34	29,674.18	22,448.77	52,122.95		do.	12	
328	H-2	17,834.91	15.00	11,603.64	29,438.55	9,043.57	38,532.12		Dec. 1, 1913	12	
329	H-3	20,200.35	50.00	8,321.47	28,521.82	16,443.32	45,013.14		Jan. 16, 1914	12	
330	K-1	26,618.43		18,443.76	44,062.18	17,656.27	61,718.45		Mar. 17, 1914	12	
331	K-2	25,601.83		23,498.83	47,000.71	18,478.40	65,579.11		Jan. 31, 1914	12	
332	K-3	24,573.46		11,036.32	35,609.78	11,914.54	47,524.32		Oct. 30, 1914	12	

[illegible]

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including com-mitted rations.	Stores issued, including provisions and medical stores.							
	SUBMARINES.										
5003	A-2				\$2,940.43	\$30.34	\$384.78	\$384.78	106	May 28, 1903	12
5004	A-3						297.90	2,970.77	106	Jan. 17, 1903	12
5005	A-4				2,746.11	994.41	457.47	4,197.99	106	May 28, 1903	12
5006	A-5						414.59	4,197.99	106	Sept. 19, 1903	12
5007	A-6						468.33	468.33	106	do	12
5008	A-7						468.33	468.33	106	do	12
5010	A-1	\$10,036.81	\$116.28	11,729.74	21,882.83	17,334.01	5,714.68	44,931.52	145	Oct. 18, 1903	12
5011	B-2				1.61		654.85	654.85	145	Oct. 18, 1907	12
5012	B-3				5,595.73	278.10	116.90	5,990.73	145	Dec. 3, 1907	12
5009	C-1						1,412.53	1,412.53	239	June 30, 1908	12
5013	C-2						21.75	21.75	240	Nov. 23, 1909	12
5015	C-4						148.66	148.66	240	do	12
5017	D-1	7,978.31		6,529.23	14,507.54	682.89	1,913.67	17,104.10	288	do	12
5018	D-2	9,723.79		4,949.12	14,672.91	434.38	1,888.88	16,966.17	288	do	12
5019	D-3	20,025.84		5,612.65	25,638.49	1,781.72	27.76	27,447.97	288	Sept. 8, 1910	12
5024	E-1	10,824.31		38,458.13	38,458.13	28,430.22	2,341.90	69,230.26	287	Feb. 14, 1912	12
5025	E-2	27,633.82		13,700.58	27,396.61	25,357.17	3,230.33	55,984.11	287	do	12
5020	F-1	1,650.00		1.61	1.61			1.61			
5021	F-2	31,934.66	3.20	10,302.91	42,240.77	5,834.04	89,779.54	137,854.35	330	June 25, 1912	12
5022	F-3	30,750.31		9,396.67	40,146.98	5,596.64	103,879.06	144,622.68	330	Aug. 25, 1912	12
5023	G-1	3,012.27		39.74	3,052.01	59.74	18,590.35	21,002.62	400	Oct. 28, 1912	12
5027	G-2			97.81	97.81			97.81	375	Feb. 6, 1915	10
5031	G-3	9,870.08	47.10	4,042.80	13,959.98	654.30	519.20	15,133.48	393	Mar. 22, 1915	10
5026	G-4			22.20	22.20						
5028	H-1	3,168.98		1.61	3,170.59	128.52	35,063.58	38,616.72	358	Dec. 1, 1913	12
5029	H-2	36,740.22		14,943.77	51,901.79	1,031.35	24,608.90	88,016.72	358	Jan. 14, 1914	12
5030	H-3	40,695.50	208.80	15,840.91	65,546.00	497.90	90,076.40	100,066.40	358	Oct. 24, 1914	12
5147	H-4	48,812.21	13.10	15,141.53	63,933.74	1,998.39	34,122.08	90,074.21	357	Sept. 30, 1918	12
5148	H-5	34,092.33		14,353.22	48,445.55	1,001.52	38,630.40	87,236.40	357	Sept. 30, 1918	12
5149	H-6	43,248.13		15,078.64	58,326.77	414.33	37,083.56	95,834.66	357	Oct. 9, 1918	12
5150	H-7	49,990.52	108.61	13,888.07	64,056.20	429.08	30,779.38	95,204.66	357	Nov. 24, 1918	12
5151	H-8	39,197.77	113.00	14,628.09	54,238.86	109.08	17,063.11	71,541.03	357	Nov. 23, 1919	12
5152	H-9	55,035.02		15,050.89	70,085.91	8.78	17,063.11	87,166.80	357	Nov. 23, 1919	12

5041	L-1	121.94	12,243.69	20,647.40	24,887.19	2,053.37	45,487.96	455	Sept. 20, 1916
5042	L-1	143.90	13,216.02	24,401.61	25,538.36	14,075.57	64,016.64	450	Apr. 22, 1916
5043	L-1	207.30	13,357.81	27,777.28	25,200.76	30,149.57	54,745.04	451	May 4, 1916
5044	L-1	230.90	19,804.45	67,707.21	1,730.16	30,149.57	99,654.04	450	Feb. 17, 1916
5045	L-1	138.45	21,604.71	65,941.53	5,054.30	10,240.86	81,205.99	451	Dec. 7, 1917
5046	L-1	130.45	21,604.71	65,941.53	1,042.83	75,274.14	139,807.39	451	Dec. 7, 1917
5047	L-1	130.45	21,604.71	65,941.53	1,042.83	75,274.14	139,807.39	451	Dec. 7, 1917
5048	L-1	131.70	17,854.98	57,360.15	1,149.22	19,018.94	67,527.77	451	Aug. 30, 1917
5049	L-1	243.01	23,259.07	38,755.73	25,376.96	1,586.52	68,728.04	450	Aug. 4, 1916
5050	L-1	116.55	21,549.55	35,628.20	1,323.87	1,586.52	50,919.18	450	Aug. 2, 1915
5051	L-1	130.43	14,084.39	33,965.42	49,208.08	3,804.51	55,726.21	450	Aug. 15, 1916
5052	M-1	19,774.62	9,738.30	29,512.92	6,123.76	1,285.97	96,978.61	468	Feb. 16, 1918
5053	M-2	16,917.70	12,926.03	27,663.04	4,613.94	12,211.41	36,922.65	347	Sept. 20, 1917
5054	M-3	16,945.23	10,763.61	29,843.73	5,069.46	1,830.44	46,669.08	347	do.
5055	M-4	15,213.17	3,583.97	18,807.14	3,858.16	38,906.87	34,562.94	385	June 15, 1918
5056	M-5	15,907.62	3,824.12	16,206.31	8,911.39	45,088.06	61,572.17	385	June 14, 1918
5057	M-6	15,345.22	7,256.67	23,211.59	3,472.95	51,818.99	70,265.78	385	Aug. 9, 1918
5058	M-7	15,907.62	8,062.23	23,507.05	18,613.70	766.43	78,593.53	385	June 15, 1918
5059	O-1	159.60	13,157.72	38,631.37	10,414.07	69,048.80	41,414.32	520	Nov. 5, 1918
5060	O-2	232.65	16,001.35	46,536.88	14,226.50	5,965.92	118,094.24	520	Oct. 19, 1918
5061	O-3	163.80	17,450.19	56,187.89	62,161.33	9,052.58	64,759.30	520	June 13, 1918
5062	O-4	263.20	12,473.23	31,506.40	830.47	179,926.30	127,401.80	520	May 28, 1918
5063	O-5	238.20	19,858.72	59,761.99	33,891.39	7,165.54	100,808.92	520	June 8, 1918
5064	O-6	166.20	17,726.95	42,411.50	1,356.43	4,082.91	48,450.84	520	June 12, 1918
5065	O-7	453.00	17,390.86	45,032.83	1,372.08	7,099.13	53,504.04	520	July 4, 1918
5066	O-8	375.20	16,023.25	44,718.41	4,124.09	10,017.47	58,869.97	520	July 11, 1918
5067	O-9	170.60	15,852.83	43,718.63	8,735.22	4,830.44	57,364.29	520	July 27, 1918
5068	O-10	32.25	40,956.30	45,453.85	1,767.56	10,845.27	61,064.68	520	Oct. 17, 1918
5069	O-11	32.25	29,442.87	77,781.91	3,166.46	17.11	81,359.00	485	do.
5070	O-12	36,009.48	36,516.92	63,653.31	9,050.19	17.11	72,920.61	485	do.
5071	O-13	34,410.44	34,740.23	73,265.40	2,151.87	19.96	75,268.23	485	Nov. 21, 1918
5072	O-14	31,805.73	31,805.73	59,179.45	2,272.87	12.98	78,713.00	485	Oct. 1, 1918
5073	O-15	42,894.40	42,894.40	59,179.45	2,272.87	6.04	69,458.02	485	Aug. 21, 1918
5074	R-1	21,333.56	19,194.82	67,890.36	5,261.82	7,818.99	81,270.32	569	Aug. 15, 1918
5075	R-2	46,418.23	19,194.82	67,890.36	5,261.82	29,416.74	133,807.02	569	Dec. 16, 1918
5076	R-3	79,342.41	17,118.52	95,478.79	6,427.57	28,238.41	131,139.99	569	Jan. 17, 1919
5077	R-4	40,551.85	17,906.94	58,123.01	12,117.19	28,781.15	94,144.77	569	Apr. 28, 1919
5078	R-5	40,169.13	17,953.88	58,123.01	10,679.03	37,194.04	99,021.35	569	Mar. 15, 1919
5079	R-6	47,015.06	18,847.27	65,862.33	12,117.19	37,194.04	113,853.40	569	Apr. 15, 1919
5080	R-7	46,559.55	18,718.55	65,278.10	10,298.07	28,449.06	104,523.23	569	June 21, 1919
5081	R-8	45,285.85	19,780.58	65,066.43	1,246.75	27,033.00	93,368.78	569	July 30, 1919
5082	R-9	37,280.44	12,280.73	49,561.17	13,692.12	28,405.78	82,532.05	569	Aug. 15, 1919
5083	R-10	45,752.17	19,510.23	65,262.40	15,571.61	27,668.53	108,532.54	569	Aug. 5, 1919
5084	R-11	99.00	28,054.92	75,894.03	1,000.28	12,609.73	88,027.73	569	Sept. 2, 1919
5085	R-12	45,165.78	28,054.92	75,894.03	1,000.28	10,923.80	93,973.18	569	Oct. 27, 1919
5086	R-13	45,621.53	28,223.09	68,535.20	3,787.20	11,550.78	83,074.18	569	Oct. 27, 1919
5087	R-14	26.40	28,223.09	73,220.46	4,220.94	9,161.85	86,663.25	569	Dec. 24, 1919

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and commuted rations.	Stores issued, including provisions and medical stores.							
SUBMARINES—continued.											
5002	R-15.....	\$60,493.95		\$19,211.11	\$79,705.06	\$3,744.94	\$22,562.60	\$83,524.72	569	July 27, 1918	12
5003	R-16.....	54,724.21	\$953.12	16,411.97	72,099.30	7,390.06	33,642.25	113,130.61	569	Aug. 6, 1918	12
5004	R-17.....	40,721.77		14,701.27	55,423.04	2,541.57	13,143.50	71,108.11	569	Aug. 17, 1918	12
5005	R-18.....	44,095.59		14,710.47	58,806.06	3,377.93	28,833.40	91,017.39	569	Sept. 1, 1918	12
5006	R-19.....	40,272.30		14,577.87	54,850.17	6,047.75	26,432.43	87,350.40	569	Oct. 7, 1918	12
5007	R-20.....	38,407.36		13,340.48	52,747.84	1,827.65	30,323.39	84,968.88	569	Oct. 26, 1918	12
5008	R-21.....	42,698.87	490.45	25,115.70	68,263.02	15,217.69	710.70	84,221.41	495	June 1, 1919	12
5009	R-22.....	23,494.31	3,138.91	25,711.79	52,335.01	13,841.74	1,078.56	67,255.31	495	Aug. 1, 1919	12
5100	R-23.....	38,242.85	458.54	13,937.08	52,658.47	7,367.00	142.66	60,033.63	495	Aug. 23, 1919	12
5101	R-24.....	39,490.06	3,081.57	29,022.30	71,572.93	7,297.00	55.44	80,568.50	495	Oct. 23, 1919	12
5102	R-25.....	35,241.39	6,590.19	16,512.53	58,423.11	14,842.91	55.44	75,278.15	495	do	13
5103	R-26.....	37,430.54	6,433.62	21,250.75	67,894.12	7,757.77	64.56	75,672.33	495	Sept. 3, 1919	13
5104	R-27.....	37,275.69	156.75	29,031.36	72,740.67	7,922.92	64.56	80,728.15	495	Sept. 3, 1919	13
5105	S-1.....	69,897.44	250.20	17,534.32	87,598.51	63,808.60	2,263.31	153,650.42	.....	June 5, 1920	.....
5106	S-2.....	76,868.24	250.20	26,367.26	108,458.75	69,268.55	21,649.92	194,404.17	.....	May 25, 1920	.....
5107	S-3.....	61,100.77	3,204.32	19,676.46	83,981.55	21,866.75	145,071.52	250,949.82	.....	June 30, 1919	12
5108	S-4.....	54,255.51	91.20	16,594.47	70,941.18	23,115.19	24,831.20	118,867.57	.....	Nov. 19, 1919	12
5110	S-5.....	184.20	184.20	9,549.23	27,841.67	31,183.35	546.74	96,551.76	.....	Mar. 6, 1920	.....
5111	S-6.....	18,108.24	21.08	25,479.99	76,934.36	33,243.04	7,262.16	117,439.56	.....	May 17, 1920	.....
5112	S-7.....	51,433.29	89.32	26,530.98	80,246.01	30,204.36	4,458.12	111,008.49	.....	July 1, 1920	9
5113	S-8.....	53,625.71		21,076.26	58,417.29	47,263.06	8,807.98	114,493.32	.....	Oct. 1, 1920	.....
5114	S-9.....	37,341.03			27,009.37	44,263.70	92.66	71,591.78	.....	Feb. 21, 1921	4
5115	S-10.....	18,276.15	106.20			59.45	144.88	86.40	.....	.....	.....
5116	S-11.....					59.45	144.88	86.45	.....	.....	.....
5117	S-12.....					59.45	144.88	86.45	.....	.....	.....
5118	S-13.....					59.45	144.88	86.45	.....	.....	.....
5119	S-14.....	18,095.23	213.55	11,193.59	29,276.46	49,063.47	1,840.58	80,373.51	.....	Feb. 11, 1921	4
5120	S-15.....	20,244.12	207.60	8,994.97	29,038.69	71,761.13	8,301.44	109,099.26	.....	Jan. 15, 1921	5
5121	S-16.....	28,516.20	144.50	11,921.53	37,563.41	72,120.61	1,819.07	118,622.09	.....	Dec. 17, 1920	6
5122	S-17.....	15,407.64	195.96	12,231.19	27,624.79	36,448.71	4,196.75	68,493.26	.....	Mar. 1, 1921	.....
5123	S-18.....			18.16	18.16		2,995.00	2,995.16	.....	.....	.....
5124	S-19.....			1,550.83	1,550.83			1,551.31	.....	.....	.....
5125	S-20.....			1,550.83	1,550.83			1,551.48	.....	.....	.....

S-1	30,240.46	10,770.10	31,019.56	478.34	478.34	478.34	176.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.34	478.3
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1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operat- ing expenses.	Equipage.	Repairs and alterations to ships, includ- ing equipage.	Total main- tenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including provisions.					Days in full com- mission.	Operating with re- duced com- pents in reserve or ordinary.	Days out of com- mission.
SUBMARINES.											
5004	A-3					\$60.99		\$60.99	\$ 25		67
5006	A-5					3.90		3.90	\$ 25		67
5008	A-7							72.08			92
5010	B-1	\$3,724.03	\$208.36		\$3,932.39	31.65	\$72.08	3,964.04			
5012	B-3	736.54				29.07		29.07			
5017	B-1	1,154.73	72.00	\$1,183.41	1,991.95	123.43		2,115.38			67
5018	D-1	2,280.88	155.91	1,299.93	2,610.57	61.66		2,672.23			77
5019	D-3	2,280.88		1,773.43	4,054.31	116.40	20.28	4,270.71	\$ 15		
5024	E-1	669.62		1,797.62	2,479.04	1.85	1,906.82	4,385.86	\$ 92		
5025	E-2	1,423.68	11.80	1,446.61	2,874.96	58.55	16.65	2,933.51	\$ 92		
5026	F-1	11,218.85	49.00	3,718.12	14,985.97	146.85	489.33	15,522.15	\$ 92		
5027	F-3	10,171.14		3,181.47	13,352.61	859.84	16.17	14,228.62	\$ 92		
5028	G-1	606.07			606.07		338.78	944.85			
5029	G-2		6.81	1,162.87	1,169.68	126.35	17.31	1,357.09			
5031	G-3	8,349.91		2,946.94	11,296.85	126.54	258.31	11,750.70			
5032	H-2	7,224.47		3,360.81	10,585.28	434.84	985.68	12,005.80			
5030	H-3	10,451.85		3,207.28	13,659.13	4.27	579.00	14,242.40			
5147	H-4	7,728.65		3,111.29	10,839.94	53.30	435.00	11,328.24			
5148	H-5	9,472.16	46.00	3,258.74	12,776.90	65.35	405.03	13,247.28			
5149	H-6	8,515.54	33.00	3,493.21	12,041.75	123.76	429.61	12,565.12			
5150	H-7	8,532.40		2,529.86	11,062.26	405.25	429.61	11,887.87			
5151	H-8	9,525.22		2,719.33	12,244.55	101.68	418.97	12,765.20			
5033	K-1	6,151.72		2,587.81	8,739.53	9.90	119.36	8,858.89			
5034	K-2	6,543.98		3,584.25	10,128.23	27.81	2,242.43	12,398.47			
5035	K-3	8,566.40		2,461.63	11,028.03	1.35	4,465.97	15,495.35			
5036	K-4	8,487.25		3,032.95	11,520.20	11.15	4,664.78	16,185.13			
5037	K-5	8,737.39		2,808.54	11,545.93	41.55	840.46	12,425.94			

9,149,36	7,379,06	4,323,06	1,824,38	5,777,97	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84	7,577,84
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³ Reserve.
⁴ Credit.
⁵ 18 reserve, 74 ordinary.
⁶ 50 per cent.

¹ All submarines in full commission 92 days unless otherwise noted.
² Ordinary.

1923—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SUBMARINES—continued.											
5004	R-17	\$9,361.83		\$2,044.59	\$11,406.42	\$267.50	\$176.56	\$11,860.48			
5005	R-18	9,201.16		2,107.94	11,309.10	278.83	634.08	12,311.01			
5006	R-19	8,725.12		7,226.14	10,954.26	189.53	42.32	11,186.41			
5007	R-20	8,307.90		1,821.41	10,129.31	568.36	4,976.55	15,674.22			
5008	R-21	8,164.83		19,808.84	27,975.67	3.63		27,979.35			
5009	R-22	8,354.12	\$242.16	12,819.07	18,365.35	1.35		45,673.08			
5100	R-23	6,368.77		6,242.01	12,641.28	2,065.25	27,278.36	14,667.63			
5101	R-24	6,453.71		16,365.42	22,822.13	140.37		22,962.80			
5102	R-25	6,453.58		5,053.54	12,067.12	33.40		12,120.52			
5103	R-26	6,913.30		7,004.01	13,922.31	124.97	30.79	14,078.07			
5104	R-27	6,666.62		6,850.04	13,516.66	273.89		13,790.55			
5105	S-1	13,969.87	212.40	10,915.54	25,097.81	453.60	3,578.68	29,130.09			
5106	S-2	13,598.76	20.16	19,292.21	32,890.13	35,373.72	691.71	68,964.56			
5107	S-3	14,246.64		4,387.28	18,633.92	1,018.76	9,494.36	29,147.04			
5108	S-4	14,170.99		5,467.96	19,638.95	1,260.54	27.36	20,926.85			
5109	S-5							435.79			
5110	S-6	14,549.37		7,031.71	21,571.08	1,678.10	148.35	23,397.53			
5111	S-7	14,441.78		6,842.60	21,284.38	1,521.42	159.80	22,965.00			
5112	S-8	13,769.06		6,716.87	20,515.92	1,143.56	200.75	21,960.23			
5113	S-9			8,955.18	21,136.36	1,372.79	27.00	21,536.15			
5114	S-10	12,181.18				17.24		17.24			92
5115	S-11										92
5116	S-12					6,696.00		6,696.00			
5117	S-13	11,892.35		10,194.36	21,686.71			21,970.23			
5118	S-14	12,027.33		8,626.26	21,363.58	4.99		21,314.79			
5119	S-15	13,107.37		8,226.62	22,333.99	4.99		22,316.70			
5120	S-16	12,602.55		9,044.83	21,647.68	865.51		46,138.92			
5121	S-17			1,115.16	1,115.16	26,635.73		6.84			92
5122	S-18			18.16	18.16			38			
5123	S-19	4,673.63	210.00	1,340.24	6,231.57	1,391.25		7,648.12			
5124	S-20							25.00			
5125	S-21			1,702.69	6,578.09	1,391.58		7,995.67			
5126	S-22	4,666.40	210.00					25.00			
5127	S-23							25.00			
5128	S-24							25.00			
5129	S-25							25.00			
5130	S-26							25.00			

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• Credit.

50 per cent.

? 46 reserve, 46 ordinary.

SUBMARINE CHASERS.

Mr. KELLEY. Now we come to the submarine chasers. How many of those have you on your list for 1921?

Mr. REED. The statement here shows 83 in commission during a part of the year.

Mr. KELLEY. During 1921?

Mr. REED. Yes; although there are others on which charges have been made, either delayed bills coming in for prior years or some miscellaneous work on them.

Mr. KELLEY. How much did we spend for the maintenance and operation of the submarine chasers in 1921?

Admiral POTTER. We spent \$1,531,686.35.

Mr. KELLEY. In the table for 1922 how many are included?

Admiral POTTER. From a hasty glance it looks to be 132.

Mr. KELLEY. That would be more than you had last year.

Mr. REED. Some of those are not in commission.

Admiral POTTER. These are those against which charges have been made.

Mr. KELLEY. What is the total for the quarter?

Admiral POTTER. The total is \$203,945.27.

Mr. KELLEY. There are a few of these that seem to have quite large sums set off against them in your report for 1921. Let us look into that list a little and see whether we can ascertain why those sums are so large. These boats cost, as I recollect, about \$70,000.

Mr. REED. They range from \$40,000 to about \$110,000; some of the larger ones cost about \$110,000, I think, including the engines.

Mr. KELLEY. On page 185 of Ships' Data the contract price of a subchaser is put down at \$70,900, and they run along at about that, running up to as high as \$74,000. That is according to page 185 of Ships' Data.

Admiral POTTER. For 1921?

Mr. KELLEY. Yes. Take No. 96. It seems that a ship costing \$70,000 is a pretty expensive thing if it costs \$57,000 to run it a year, although I am not much of a ship operator.

Admiral POTTER. The big item of that is pay, \$22,000.

Mr. KELLEY. How does that come about?

Admiral POTTER. I do not know, sir. Admiral Coontz will have to tell you about that.

Mr. REED. It would depend on the duty performed.

Mr. KELLEY. You will notice that No. 159 cost \$23,115 and the pay there is very small. But that is quite a large sum of money for those little boats.

Admiral POTTER. They evidently did a lot of cruising for some reason.

Mr. KELLEY. Who controls these boats?

Admiral POTTER. They are under the general direction of the Chief of Operations.

Mr. KELLEY. How can he tell how much they are sailing?

Admiral POTTER. They are directly under the respective district commandants.

Col. ROOSEVELT. Perhaps I can give you something there which will help.

Mr. KELLEY. Possibly we had better leave it until Admiral Coontz here, so that we will not go over it twice. The Secretary, yourself, and Admiral Coontz are responsible for the running of these boats and possibly that is the time to take it up rather than with the financiers; these men are the financiers and bookkeepers, and good ones. There is another one, No. 273, and \$19,383 is quite a large sum for that little boat.

Admiral POTTER. The same answer must be made as to that; it depends on its duty.

Mr. KELLEY. Here is another one, No. 277, \$63,636.

Mr. REED. In that case there was \$46,000 for repairs and alterations.

Mr. KELLEY. Why would they repair a little boat like that and put that much money on it, a boat that cost only \$70,000? Who determines whether a boat shall be repaired or not?

Admiral POTTER. Well, the final authority, of course, would be the Navy Department itself; the estimates are made locally by the local construction officers and by the local engineering officers under the supervision of the commandant of the district. They make a report.

Mr. KELLEY. Here are numbers 277 and 278, one costing \$36,636 and the other \$67,142; the repairs on one amounted to \$46,333 and the repairs on the other amounted to \$47,158. You do not know why those repairs were made on these little boats?

Admiral POTTER. No, sir.

Mr. KELLEY. Here is one, No. 298.

Admiral POTTER. \$71,023.45, of which \$44,236.03 is represented by repairs.

Mr. KELLEY. And No. 299?

Admiral POTTER. \$53,152, and repairs, \$31,487.

Mr. KELLEY. And No. 305?

Col. ROOSEVELT: I do not know what the repairs were in 1921, but they are out of commission now.

Mr. KELLEY. Are they all out now?

Col. ROOSEVELT. 298 and 299 are out.

Mr. KELLEY. After putting that much money on them you ought to let them run awhile.

Col. ROOSEVELT. I do not know about that; I can not tell.

Mr. KELLEY. How much were the repairs on No. 306?

Admiral POTTER. \$39,837.

Mr. OLIVER. Will your questions elicit the same information for the fiscal year 1922?

Mr. KELLEY. Yes; the table will follow right along, but I was curious about these amounts, and I am putting them into the record so that they will be directly called to somebody's attention. Here is No. 338.

Admiral POTTER. The total for No. 338 is \$54,211; the repairs, however, are very small, \$310.74. Most of that amount is represented by stores issued.

Col. ROOSEVELT. She is at Constantinople; she is for sale but we can not find anybody to buy her.

Mr. REED. It may be that she also carries the pay accounts of certain personnel that may be ashore, which would make that amount appear quite large.

Mr. KELLEY. That must be so with so large an amount for pay, \$20,000. They do not carry over 20 men, do they?

Mr. REED. They carry a very small crew, as a rule.

Admiral POTTER. That is substantiated by the stores issued, including provisions, which you see are \$30,438. So undoubtedly they are carrying a lot of accounts.

Mr. KELLEY. No. 444.

Admiral POTTER. The total amount is \$47,880.

Mr. KELLEY. That is for 1921?

Admiral POTTER. Yes, sir; and the repairs are \$2,346. The large item is stores, including provisions, \$34,008.

Col. ROOSEVELT. She is working down at Santo Domingo.

Mr. KELLEY. I am not sure that "working" is the right word for these boats. Give us the total for the first three months of 1922 as to some of these boats where the amounts run so high.

Admiral POTTER. The total for the first three months of 1922 is \$203,945.27.

Mr. KELLEY. If you multiply that by four?

Admiral POTTER. That is \$812,000.

Mr. KELLEY. Considering the reduced price of gasoline it looks as though they used as much as last year.

Col. ROOSEVELT. But they are going down.

Mr. KELLEY. Since the first quarter?

Col. ROOSEVELT. Very much. You see, many of these will have gone out of commission; we are trying to sell a lot of them and we are only planning to have 49 at this moment.

Admiral POTTER. Do you want the amounts as to some of the vessels you have mentioned?

Mr. KELLEY. Yes. Let us take No. 96.

Admiral POTTER. \$8,639 for the first three months of 1922.

Col. ROOSEVELT. She is at Constantinople and she is for sale, but we can not get any bids for her.

Mr. KELLEY. That is a pretty big upkeep for a ship that cost only \$70,000.

Col. ROOSEVELT. It is, but, of course, it is——

Mr. KELLEY (interposing). In a year's time, you see, it eats up half its value.

Col. ROOSEVELT. But it is a question of substituting something else for her, and we have practically gotten now where we will take her out.

Mr. KELLEY. In a good many ways it is like Sherman's answer with reference to the resumption of specie payments.

Col. ROOSEVELT. What was that?

Mr. KELLEY. The way to resume was to resume, and the way to take these out is to just take them out.

Col. ROOSEVELT. That will be done as fast as possible.

Mr. KELLEY. At this point put in the full table.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications, medical stores.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASERS.											
5501	No. 1.			\$33.01	\$32.01		\$33.05	\$66.06	77	Oct. 8, 1917	
5502	No. 2.			632.66	632.66		321.79	192.73	77	Jan. 8, 1918	
5503	No. 3.			977.79	977.79	\$8.28	193.25	1,386.86	77	Jan. 8, 1917	
5504	No. 4.			1.25	1.25	14.84		167.19	77	Feb. 19, 1918	
5505	No. 5.			4.66	4.66		163.94	167.19	77	Aug. 19, 1917	
5506	No. 6.			2.76	2.76			2.76			
5507	No. 7.			14.00	14.00			86.62	77	No. 8, 1917	
5508	No. 8.			38.76	38.76			53.70	77	do.	
5509	No. 9.			28.20	28.20			84.30	77	do.	
5510	No. 10.						70.30	43.30	77	Oct. 18, 1917	
5511	No. 11.							14.00	77	Oct. 19, 1917	
5512	No. 12.							14.00	77	Oct. 16, 1917	
5513	No. 13.							12.25	77	do.	
5514	No. 14.							14.00	77	Oct. 22, 1917	
5515	No. 15.			1,795.49	1,795.49			1,809.49	77	Oct. 16, 1917	
5516	No. 16.			363.09	363.09			372.09	77	Oct. 19, 1917	
5517	No. 17.			1,994.72	1,994.72			2,008.72	77	Nov. 8, 1917	
5518	No. 18.			21.08	21.08	27.66		48.74	77	Jan. 9, 1918	
5519	No. 19.			21.51	21.51	14.00		35.51	77	Jan. 23, 1918	
5520	No. 20.			28.48	28.48	34.85		63.33	77	do.	
5521	No. 21.			184.30	184.30	14.00		780.62	77	Feb. 1, 1918	
5522	No. 22.			346.67	346.67	14.00		403.30	77	do.	
5523	No. 23.			51.47	51.47	120.40		211.87	77	Mar. 2, 1918	
5524	No. 24.			490.56	490.56	14.00		1,252.71	77	Feb. 13, 1918	
5525	No. 25.			3.11	3.11	14.00		17.11	77	Feb. 19, 1918	
5526	No. 26.			18.32	18.32	14.00		48.32	77	Mar. 2, 1918	
5527	No. 27.			60.02	60.02	30.00		1,607.85	77	Feb. 2, 1918	
5528	No. 28.			648.73	648.73			1,738.31	77	Mar. 19, 1918	
5529	No. 29.			172.71	172.71	12.50		1,585.15	77	Mar. 1, 1918	
5530	No. 30.			190.72	190.72			682.91	77	Mar. 16, 1918	
5531	No. 31.			56.89	56.89			383.18	77	do.	
5532	No. 32.			211.21	211.21	7.89		596.78	77	Mar. 27, 1918	
5533	No. 33.			22.32	22.32			41.82	77	Dec. 6, 1917	
5534	No. 34.					19.50		41.82	77	Apr. 23, 1918	

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and medical stores.	Stores issued, including provisions and medical stores.							
SUMMARY CHASERS—contd.											
				\$78.08	\$78.08	\$90.00	\$10,714.41	\$10,882.49	77	Apr. 30, 1918	
				1,976.08	1,976.08			1,976.08	77	May 11, 1918	
				35.42	35.42			35.42	77	Apr. 30, 1918	
		\$933.31		517.51	1,450.82	6.54	41.04	1,498.40	77	May 6, 1918	12
				714.12	714.12	19.05	1,339.96	2,073.13	77	do.	
				31.17	31.17			31.17	77	do.	
			30.94	30.94	30.94		557.64	588.58	77	May 11, 1918	
				34.00	34.00			34.00	77	do.	
			231.40	231.40	231.40			231.40	77	May 23, 1918	
			221.34	2,527.78	18,253.02	200.82		18,453.84	77	May 21, 1918	12
			170.00	4,068.91	4,238.91	7,922.51	6,697.61	17,369.24	77	May 23, 1918	6
			28.65	14.11	43.76	7,918.74	4,173.15	16,330.80	77	do.	6
				14.11	14.11			14.11	77		
				14.11	14.11			14.11	77		
				14.77	14.77			14.77	77		
			38.00	646.78	905.38	69.73	1,847.79	2,663.44	77	May 15, 1918	
		177.60		14.76	14.76			14.76	77	Feb. 16, 1918	
				3,892.97	8,901.84	255.04	189.76	7,345.64	77	do.	
		3,008.87		12,811.84	26,147.43	623.16		26,770.59	77	Mar. 26, 1918	12
		13,245.29	40.50	98.70	98.70		1,085.72	1,184.42	77	Mar. 21, 1918	12
				1,460.98	1,460.98	35.00	312.44	1,773.42	77	do.	9
				13.50	13.50			13.50	77		
				13.50	13.50			13.50	77		
			21.70	169.39	191.09		514.42	705.51	77	Dec. 5, 1917	
				4.66	4.66			4.66	77	Dec. 14, 1917	
			3.40	3.73	7.13		1,042.19	1,046.32	77	Dec. 5, 1917	
			.60	2.77	3.37		927.56	930.93	77	Dec. 18, 1917	
				1.62	1.62			1,968.57	77	do.	
			109.11	24.51	123.62		1,854.95	1,983.47	77	Feb. 21, 1918	
				27.57	27.57		25.06	52.63	77	do.	
				19.84	19.84		.24	21.08	77	do.	
				27.57	27.57			27.57	77	do.	
				34.48	34.48		20.00	54.48	77	do.	
				165.28	165.28	130.48		295.76	77	Mar. 1, 1918	
				7.75	7.75			7.75	77	do.	
			28.68	3,245.92	3,271.97	104.60	80.68	3,457.10	77	Nov. 14, 1917	

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1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and medical stores.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASERS—Contd.											
5553	No. 53			\$78.08	\$78.08	\$90.00	\$10,714.41	\$10,892.49	77	Apr. 30, 1918	
5554	No. 54			1,976.08	1,976.08			1,976.08	77	Apr. 30, 1918	
5555	No. 55			35.42	35.42	6.54	41.04	35.42	77	Apr. 30, 1918	
5556	No. 56	\$633.31		517.51	1,450.82	19.05	1,339.90	1,498.40	77	May 6, 1918	
5557	No. 57			714.12	31.17			2,073.13	77	do.	12
5558	No. 58			31.17	30.84		557.64	31.17	77	do.	
5559	No. 59	30.84		34.00	30.84			588.48	77	May 11, 1918	
5560	No. 60				34.00			34.00	77	do.	
5561	No. 61	231.40			231.40			231.40	77	May 23, 1918	
5562	No. 62	\$10,551.91		7,701.11	18,253.02	200.82	6,697.61	18,453.84	77	May 21, 1918	12
5563	No. 63	221.34		2,527.78	2,749.12	7,922.51		17,366.24	77	May 22, 1918	6
5564	No. 64	170.00		4,068.91	4,238.91	7,918.74	4,173.15	16,330.80	77	do.	6
5565	No. 65	28.65		14.11	43.76			43.76	77		
5566	No. 66			14.11	14.11			14.11	77		
5567	No. 67			14.11	14.11			14.11	77		
5568	No. 68			14.77	14.77	69.73	1,847.79	2,063.44	77	May 15, 1918	
5569	No. 69	38.00		686.78	945.38			1,003.44	77	Feb. 16, 1918	
5570	No. 70	177.60		14.76	14.76			1,176.76	77	do.	
5571	No. 71	3,008.87		3,892.07	6,901.24	255.04	189.70	7,346.64	77	Mar. 26, 1918	12
5572	No. 72	13,245.29	40.50	12,881.84	26,127.93	623.16		26,770.59	77	Mar. 26, 1918	12
5573	No. 73			1,460.08	1,460.08	65.00	312.44	1,730.43	77	Mar. 20, 1918	
5574	No. 74			13.50	13.50			13.50	77	do.	9
5575	No. 75			13.50	13.50			13.50	77		
5576	No. 76			13.50	13.50			13.50	77		
5577	No. 77	21.70		169.80	191.09		514.42	705.51	77	Dec. 5, 1917	
5578	No. 78			4.66	4.66			4.66	77	Dec. 14, 1917	
5579	No. 79	3.40		3.73	7.13		1,042.19	1,046.32	77	Dec. 5, 1917	
5580	No. 80	.60		2.77	5.27		927.56	930.98	77	Dec. 13, 1917	
5581	No. 81			1.62	1.62			1.62	77	do.	
5582	No. 82	100.11		24.51	133.02		1,844.06	1,968.57	77	Feb. 21, 1918	
5583	No. 83			27.87	27.87		53.63	53.63	77	do.	
5584	No. 84			19.84	19.84		20.06	20.06	77	do.	
5585	No. 85			27.57	27.57		.24	27.57	77	do.	
5586	No. 86			24.48	24.48		20.00	24.48	77	do.	
5587	No. 87			165.25	165.25			264.76	77	do.	
5588	No. 88			7.75	7.75	130.48		264.76	77	Mar. 1, 1918	
5589	No. 89			7.75	7.75			264.76	77	do.	
5590	No. 90	23.05		3,271.97	3,271.97	104.50	66.53	3,467.16	77	Nov. 14, 1917	

1994	31.43	4.79	22,423.76	31.43	149.66	31.43	94.55	Dec. 24, 1917	5,712.11
1995	642.25	9.08		647.04		56,971.50	2.79	do.	741.59
1996	34,538.05			33.02		33.02		Dec. 8, 1917	57,123.95
1997	33.02			74.79		74.79		Jan. 8, 1918	33.02
1998	74.79			41.67		41.67		Feb. 19, 1918	90.59
1999	8,319.12			8,319.12		168.90		Mar. 2, 1918	182.88
2000	39.98			39.98		113.06		Mar. 3, 1918	8,584.62
2001	222.64			222.64		62.22		Mar. 7, 1918	2,377.05
2002	25.26			25.26		108.40		Mar. 12, 1918	131.66
2003	4,818.59			4,818.59		1,239.94		Mar. 12, 1918	10,878.92
2004	128.99			128.99		30.00		Mar. 12, 1918	190.31
2005	2,783.44			2,783.44		9.00		Mar. 12, 1918	3,300.73
2006	6.40			6.40				Mar. 12, 1918	6.40
2007	135.60	2.67		135.60		813.29		Mar. 30, 1918	951.56
2008	54.33			54.33		13.24		May 22, 1918	115.02
2009	1,036.15			1,036.15		1,165.43		May 23, 1918	2,204.59
2010	1,186.04			1,186.04		90.00		Apr. 3, 1919	1,278.05
2011	1,961.53			1,961.53		208.85		Apr. 23, 1919	2,190.36
2012	209.84			209.84		363.36		May 3, 1919	418.70
2013	171.90			171.90		754.96		Nov. 14, 1917	171.91
2014	36			36		308.98		Nov. 14, 1917	363.37
2015	8,305.45	20.20		8,305.45		1,686.67		Nov. 14, 1917	707.54
2016	584.75			584.75		23.49		Nov. 14, 1917	584.75
2017	41.64			41.64		13.03		Nov. 14, 1917	30.60
2018	77.47	57.20		77.47		371.87		Oct. 31, 1917	90.46
2019	2.58			2.58		20.13		Nov. 6, 1917	374.45
2020	10.85			10.85		44.00		Nov. 11, 1917	454.92
2021	387.11			387.11		188.59		Dec. 27, 1917	1.92
2022	1.92			1.92		36.51		Nov. 24, 1918	52.16
2023	8.16			8.16		19.44		Jan. 15, 1918	338.73
2024	151.14			151.14		32.90		Jan. 18, 1918	301.63
2025	264.12			264.12		24.03		Jan. 19, 1918	101.96
2026	48.72			48.72		127.29		Feb. 2, 1918	69.88
2027	56.16			56.16		71.47		Mar. 13, 1918	1,978.66
2028	1,954.63			1,954.63		66.04		do.	7,560.27
2029	7,560.27			7,560.27		187.14		do.	2,987.34
2030	2,980.05			2,980.05		436.88		do.	2,072.37
2031	1,810.94	2.82		1,810.94		41.69		do.	66.04
2032	38			38		114.63		Jan. 24, 1918	436.88
2033	583			583		6.87		Apr. 8, 1918	114.63
2034	5640			5640				do.	6.87
2035	5641			5641				do.	
2036	5642			5642				do.	

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and rationals.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASERS—contd.											
5643	No. 143		\$330.00	\$985.91	\$1,315.91	\$5,506.16	\$64.78	\$6,946.85	77	Nov. 20, 1918	11
5644	No. 144			6,500.80	6,500.80	272.36	465.17	7,238.33	77	Mar. 30, 1918	7
5645	No. 145			3,758.52	4,736.12	366.64	2,203.71	7,306.47	77	Mar. 13, 1918	10
5646	No. 146	\$831.60	146.00	10.87	10.87			10.87			
5647	No. 147			2,622.22	2,622.22			2,622.22	77	Dec. 13, 1917	12
5648	No. 148			66.52	66.52		21.60	91.12	77	do.	
5649	No. 149			1,042.81	1,042.81	1.23	34.56	1,078.60	77	Nov. 30, 1917	
5650	No. 150			1,136.53	1,136.53		30.24	1,166.77	77	Jan. 15, 1918	
5651	No. 151			38.57	38.57		38.21	74.78	77	do.	
5652	No. 152			8.62	8.62			8.62	77	Dec. 24, 1917	
5653	No. 153			224.05	224.05			224.05	77	Feb. 17, 1918	
5654	No. 154	1,198.00		10,157.13	11,355.13	1,105.49	811.80	13,362.42	77	Feb. 4, 1918	12
5655	No. 155			154.39	154.39		869.22	1,023.61	77	Feb. 15, 1918	
5656	No. 156			287.55	287.55		7,096.78	7,374.33	77	Apr. 11, 1918	
5657	No. 157			1,747.18	1,747.18	319.10		2,066.28	77	Jan. 8, 1918	
5658	No. 158		2.95	3,662.67	3,665.62	5,443.12	231.70	9,340.44	77	June 7, 1918	
5659	No. 159	2,713.30	47.47	17,993.33	20,754.10	1,007.02	1,354.67	23,115.79	77	Jan. 15, 1918	12
5663	No. 163			376.79	376.79	27.56		376.79	77	Mar. 23, 1918	
5664	No. 164	31.43		6,886.13	6,926.27	465.88	312.00	7,704.15	77	do.	12
5665	No. 165	41.14			43.75	106.40		150.15	77	do.	
5666	No. 166	43.75			43.75	12.39		12.39	77	Apr. 8, 1918	
5667	No. 167								77	Oct. 31, 1917	10
5672	No. 172			6.12	6.12			6.12	77	Dec. 24, 1917	
5677	No. 177			3,606.31	3,606.31		1,557.65	3,673.03	77	Apr. 8, 1918	
5678	No. 178			141.20	141.20		94.68	12,176.12	77	Apr. 29, 1918	
5679	No. 179			94.68	94.68		469.11	631.79	77	May 6, 1918	
5680	No. 180			11,798.01	11,798.01	378.11	476.68	677.99	77	Apr. 27, 1918	
5681	No. 181	74.42		60.51	60.51			1.35	77	do.	
5682	No. 182	2.17		201.31	201.31			1,293.24	77	Aug. 27, 1918	
5683	No. 183			1.35	1.35			10,313.75	77	do.	
5684	No. 184			1,293.24	1,293.24		9,100.90	10,313.75	77	do.	
5685	No. 185			1,293.24	1,293.24		180.69	1,033.79	77	do.	
5686	No. 186			617.27	617.27				77	do.	
5687	No. 187			1,083.79	1,083.79				77	do.	

Item	No.	Appropriation	Amount	Estimated	Actual	Balance	Available	Period	Year
5694	N. 194	1,093.28	1,093.28	1,093.28	1,093.28	0.00	1,093.28	Dec. 31, 1917	1917
5695	N. 195	1,492.44	1,492.44	1,492.44	1,492.44	0.00	1,492.44	Dec. 31, 1917	1917
5700	N. 200	1,349.08	1,349.08	1,349.08	1,349.08	0.00	1,349.08	Dec. 31, 1917	1917
5701	N. 201	1,492.44	1,492.44	1,492.44	1,492.44	0.00	1,492.44	Dec. 31, 1917	1917
5702	N. 202	7,509.92	7,509.92	7,509.92	7,509.92	0.00	7,509.92	Dec. 31, 1917	1917
5703	N. 203	1,514.24	1,514.24	1,514.24	1,514.24	0.00	1,514.24	Dec. 31, 1917	1917
5704	N. 204	438.66	438.66	438.66	438.66	0.00	438.66	Dec. 31, 1917	1917
5705	N. 205	2,271.14	2,271.14	2,271.14	2,271.14	0.00	2,271.14	Dec. 31, 1917	1917
5706	N. 206	43.65	43.65	43.65	43.65	0.00	43.65	Dec. 31, 1917	1917
5707	N. 207	326.51	326.51	326.51	326.51	0.00	326.51	Dec. 31, 1917	1917
5708	N. 208	121.66	121.66	121.66	121.66	0.00	121.66	Dec. 31, 1917	1917
5710	N. 210	1,200.35	1,200.35	1,200.35	1,200.35	0.00	1,200.35	Dec. 31, 1917	1917
5711	N. 211	3,756.89	3,756.89	3,756.89	3,756.89	0.00	3,756.89	Dec. 31, 1917	1917
5712	N. 212	1,057.35	1,057.35	1,057.35	1,057.35	0.00	1,057.35	Dec. 31, 1917	1917
5714	N. 214	146.42	146.42	146.42	146.42	0.00	146.42	Dec. 31, 1917	1917
5715	N. 215	6,666.22	6,666.22	6,666.22	6,666.22	0.00	6,666.22	Dec. 31, 1917	1917
5716	N. 216	2.88	2.88	2.88	2.88	0.00	2.88	Dec. 31, 1917	1917
5717	N. 217	1.46	1.46	1.46	1.46	0.00	1.46	Dec. 31, 1917	1917
5718	N. 218	49.32	49.32	49.32	49.32	0.00	49.32	Dec. 31, 1917	1917
5719	N. 219	17.87	17.87	17.87	17.87	0.00	17.87	Dec. 31, 1917	1917
5720	N. 220	1,955.55	1,955.55	1,955.55	1,955.55	0.00	1,955.55	Dec. 31, 1917	1917
5721	N. 221	1,012.80	1,012.80	1,012.80	1,012.80	0.00	1,012.80	Dec. 31, 1917	1917
5722	N. 222	3,921.06	3,921.06	3,921.06	3,921.06	0.00	3,921.06	Dec. 31, 1917	1917
5723	N. 223	8,592.79	8,592.79	8,592.79	8,592.79	0.00	8,592.79	Dec. 31, 1917	1917
5724	N. 224	296.46	296.46	296.46	296.46	0.00	296.46	Dec. 31, 1917	1917
5725	N. 225	3.50	3.50	3.50	3.50	0.00	3.50	Dec. 31, 1917	1917
5726	N. 226	67.42	67.42	67.42	67.42	0.00	67.42	Dec. 31, 1917	1917
5727	N. 227	3,111.61	3,111.61	3,111.61	3,111.61	0.00	3,111.61	Dec. 31, 1917	1917
5728	N. 228	53.47	53.47	53.47	53.47	0.00	53.47	Dec. 31, 1917	1917
5729	N. 229	546.41	546.41	546.41	546.41	0.00	546.41	Dec. 31, 1917	1917
5730	N. 230	28.35	28.35	28.35	28.35	0.00	28.35	Dec. 31, 1917	1917
5731	N. 231	889.13	889.13	889.13	889.13	0.00	889.13	Dec. 31, 1917	1917
5732	N. 232	4.77	4.77	4.77	4.77	0.00	4.77	Dec. 31, 1917	1917
5733	N. 233	27.20	27.20	27.20	27.20	0.00	27.20	Dec. 31, 1917	1917
5734	N. 234	36.96	36.96	36.96	36.96	0.00	36.96	Dec. 31, 1917	1917
5736	N. 236	784.17	784.17	784.17	784.17	0.00	784.17	Dec. 31, 1917	1917
5737	N. 237	632.38	632.38	632.38	632.38	0.00	632.38	Dec. 31, 1917	1917
5738	N. 238	1.84	1.84	1.84	1.84	0.00	1.84	Dec. 31, 1917	1917
5739	N. 239	288.82	288.82	288.82	288.82	0.00	288.82	Dec. 31, 1917	1917
5740	N. 240	74.52	74.52	74.52	74.52	0.00	74.52	Dec. 31, 1917	1917
5744	N. 244	9.55	9.55	9.55	9.55	0.00	9.55	Dec. 31, 1917	1917
5745	N. 245	288.82	288.82	288.82	288.82	0.00	288.82	Dec. 31, 1917	1917
5747	N. 247	74.52	74.52	74.52	74.52	0.00	74.52	Dec. 31, 1917	1917
5748	N. 248	5.00	5.00	5.00	5.00	0.00	5.00	Dec. 31, 1917	1917
5750	N. 250	5.00	5.00	5.00	5.00	0.00	5.00	Dec. 31, 1917	1917
5751	N. 251	5.00	5.00	5.00	5.00	0.00	5.00	Dec. 31, 1917	1917

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
SUBMARINE CHASES—cont'd.											
5752	No. 252.			\$182.69	\$182.69	\$26.88	\$2,900.73	\$3,110.30	77	Apr. 16, 1917	12
5753	No. 253.		\$34.09	9,653.21	9,687.30	1,302.25	1,177.27	12,166.82	77	Mar. 7, 1918	12
5754	No. 254.		3.25	161.09	164.34	8.74	483.91	656.99	77	Nov. 15, 1917	12
5755	No. 255.			1,957.99	1,957.99	84.74	26.22	2,042.73	77	Nov. 19, 1917	12
5756	No. 256.			387.50	387.50	84.74		468.46	77	do.	12
5757	No. 257.			24.64	24.64	84.74		108.38	77	Apr. 16, 1918	12
5758	No. 258.			1,005.75	1,005.75	76.00	29.21	1,081.75	77	Nov. 28, 1917	12
5759	No. 259.			296.75	296.75	8.74	31.19	334.70	77	Nov. 15, 1917	12
5760	No. 260.			30.33	30.33	8.74		70.26	77	Dec. 12, 1918	12
5761	No. 261.					8.74		8.74	77	Jan. 12, 1918	12
5762	No. 262.			20.50	20.50	84.74		105.24	77	Feb. 9, 1918	12
5763	No. 263.					101.86		101.86	77	do.	12
5764	No. 264.		391.48	708.80	1,100.28	268.26	1,992.68	3,361.22	77	Apr. 16, 1917	12
5765	No. 265.					8.74	14.30	23.04	77	Feb. 12, 1918	12
5766	No. 266.					8.74	15.60	24.34	77	Apr. 1, 1918	12
5767	No. 267.					8.74	83.00	91.74	77	Apr. 5, 1918	12
5768	No. 268.			8.40	8.40	8.74	67.11	84.25	77	Apr. 1, 1918	12
5769	No. 269.	\$9,707.55	70.00	1,051.95	1,121.95	928.05	1,710.96	1,130.99	77	do.	12
5770	No. 270.		1.43	15,011.63	24,720.61	8.74	164.42	27,359.62	77	do.	3
5771	No. 271.		6.71	33.40	33.40	8.74	347.37	206.56	77	Mar. 7, 1918	12
5772	No. 272.		10.05	188.37	198.42	8.74	3,757.81	554.53	77	Mar. 27, 1918	12
5773	No. 273.		18.50	4,962.24	13,099.01	2,536.24		19,383.06	77	Mar. 30, 1918	12
5774	No. 274.			26.51	26.51			26.51	77	Mar. 27, 1918	12
5775	No. 275.		1,314.94	1,150.45	2,465.09		214.31	2,679.40	77	Apr. 9, 1918	12
5776	No. 276.			869.20	869.20		450.23	1,309.43	77	do.	12
5777	No. 277.	6,747.27	506.29	9,187.89	16,440.45	963.25	46,233.15	63,636.85	77	Mar. 20, 1918	12
5778	No. 278.	6,747.27	1,352.88	8,656.95	16,700.10	3,224.33	47,158.47	67,452.90	77	Apr. 18, 1918	12
5779	No. 279.		57.00	430.00	477.00			477.00	77	Apr. 19, 1918	12
5780	No. 280.			17.37	17.37			17.37	77	Apr. 22, 1918	12
5781	No. 281.			681.29	681.29	8.00		689.29	77	do.	12
5782	No. 282.		6.57						77	do.	12
5783	No. 283.								77	do.	12
5784	No. 284.	11,197.00	464.39	16,516.56	28,181.01	550.95		28,731.96	77	do.	12
5785	No. 285.	2,550.00	857.92	7,842.31	11,250.23	1,028.57		12,578.80	77	May 6, 1918	12
5786	No. 286.			60.00	60.00			60.00	77	do.	12
5787	No. 287.			7,137.96	7,137.96	2,284.77		9,422.73	77	do.	12
5788	No. 288.			646.59	646.59			646.59	77	do.	12
5789	No. 289.			676.26	676.26			676.26	77	June 10, 1918	12
5790	No. 290.		77.19	484.39	561.58	20.50	946.63	1,517.29	77	May 27, 1918	12

5794	14,908.41	498.77	3,917.64	19,315.16	573.65	1,467.51	21,356.30	Mar. 25, 1918	11
5795	11,933.48	190.55	3,160.58	15,340.91	565.28	6,235.21	22,180.35	Apr. 13, 1918	12
5796								do.	
5797		7.30	13,765.25	26,261.21		4,000.95	32,232.35	do.	
5798	12,477.16		10,234.07	20,615.23	1,049.47	44,236.08	71,023.45	do.	
5799	10,352.16		10,234.07	20,615.23		31,457.08	53,152.78	Apr. 25, 1918	12
5800	10,653.60		10,234.07	20,615.23		2,609.46	13,794.58	Apr. 25, 1918	12
5801		115.72	357.22	11,126.54	58.62	9.13	12,519.22	Apr. 25, 1918	12
5802		394.67	6,873.25	15,717.04	426.47	12,519.22	28,655.17	May 14, 1918	12
5803	8,983.69		8,338.90	18,352.65	137.15	18,352.65	18,669.08	May 14, 1918	9
5804	9,894.90	3.93	6,980.07	13,431.26	3,016.68	6.44	16,454.38	May 11, 1918	12
5805	6,747.25		13,331.62	23,335.63	491.19	39,837.49	63,664.31	Feb. 17, 1918	12
5806	9,968.61		13,331.62	23,335.63		39,837.49	63,664.31	May 11, 1918	12
5807		41.00	557.75	596.75		20,200.21	28,532.77	May 11, 1918	12
5808	15,072.86	25.07	13,430.69	28,532.62	24.15	90.31	5,227.62	May 23, 1918	7
5809	3,937.78	337.42	9,769.50	5,074.70	62.81	1,175.65	16,590.86	May 18, 1918	
5810	10,334.50	102.00	4,150.24	15,145.03	280.18		16,590.86	do.	
5811				102.00			564.42	do.	
5812	564.42			564.42			564.42	do.	
5813		15.57	12,499.14	13,173.64	659.86	4,363.71	18,197.21	Dec. 1, 1918	12
5814	674.50		12,499.14	13,173.64			18,197.21	Jan. 8, 1918	
5815		22.18		22.18			107.06	Mar. 7, 1918	
5816		66	1,138.38	1,138.38	106.40		1,520.52	Dec. 5, 1918	
5817	790.44		790.44	134.92	382.14	80.97	1,871.41	Dec. 13, 1918	
5818	40.95		259.71	259.71	371.87	1,047.86	1,554.65	Nov. 14, 1918	
5819	93.97		259.71	259.71	7.25	1,840.31	2,107.27	do.	
5820			1,847.08	1,847.08	6.68		3,374.47	Dec. 10, 1917	12
5821			81.14	81.14		1,520.71	3,374.47	Oct. 20, 1917	
5822	1,080.17		6,421.23	7,501.40	654.38	447.05	8,602.83	do.	
5823			283.40	283.40	624.06	8,602.83	9,226.76	Feb. 13, 1918	
5824			1,629.80	1,629.80	11.08	258.68	1,847.42	Mar. 13, 1918	
5825			902.71	902.71	196.47		1,102.18	do.	
5826			1,555.13	1,555.13	298.70		1,853.83	Jan. 26, 1918	
5827			46.80	46.80			46.80	Mar. 4, 1918	
5828			1,407.63	1,407.63	320.60	244.91	1,973.14	Apr. 18, 1918	
5829			51.43	51.43		807.12	858.55	May 6, 1918	
5830	20,905.73		30,438.50	52,942.41	957.94	310.74	54,211.09	Dec. 24, 1917	12
5831		1,598.18		52,942.41			54,211.09	do.	
5832			11.39	11.39			26,918.32	Feb. 16, 1918	
5833	11,217.07		24,800.00	24,800.00	480.66	1,857.66	26,918.32	do.	12
5834	11,048.32		14,045.05	25,063.37	560.05	1,196.74	26,918.32	Mar. 25, 1918	12
5835			338.27	338.27		1,114.67	38.05	do.	
5836			38.05	38.05			38.05	do.	
5837			125.43	125.43		64.45	186.88	Mar. 23, 1918	
5838			129.57	129.57		804.49	934.06	Mar. 25, 1918	
5839			47.28	47.28		365.24	412.52	Mar. 25, 1918	
5840			1,000.80	1,000.80		672.21	1,673.01	Nov. 14, 1917	9
5841			45.07	45.07		21.79	66.86	Jan. 8, 1918	
5842			59.98	59.98	106.40		212.07	Mar. 2, 1918	

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.	Stores issued, including provisions and medical stores.							
SUMMARINE CHASERS—contd.											
5853	No. 353.			\$88.98	\$88.98	\$189.85	\$328.52	\$544.74	77	Mar. 20, 1918	
5854	No. 354.			26.44	26.44	108.40	6,052.56	6,165.40	77	Mar. 2, 1918	
5855	No. 355.			351.41	351.41		6.48	345.93	77	Mar. 12, 1918	
5856	No. 356.			729.19	729.19		986.95	1,696.14	77	Apr. 8, 1919	
5859	No. 359.			267.55	267.55			267.55			
5860	No. 360.			11.25	11.25			11.25			
5863	No. 363.			670.08	670.08			670.08			
5864	No. 364.	\$777.56		11.00	788.56			788.56	77		
5865	No. 365.					794.50		794.50	77		
5866	No. 366.						9.51	9.51			
5868	No. 368.	\$145.00			145.00			145.00			
5869	No. 369.	449.68		.91	5,268.56	30.53	1,710.72	7,009.81	77	Feb. 11, 1919	12
5870	No. 408.				5,268.56				77	Feb. 3, 1919	
5871	No. 410.	105.00			105.00			105.00			
5872	No. 411.	766.88		52.50	5,981.09	452.54		6,434.23	77	May 3, 1919	3
5873	No. 412.			2,711.47	2,711.47	146.11	945.93	3,804.51	77		12
5874	No. 413.			1,804.74	1,804.74		43.75	1,848.49			
5875	No. 414.			57.21	57.21	210.30		267.57			
5876	No. 415.			1,974.02	1,974.02	480.74		2,454.76	77	Jan. 13, 1919	
5877	No. 416.	297.17		1,771.53	1,669.00	58.04		1,726.64			
5878	No. 418.	45.00		1,207.55	1,252.55	70.49		1,323.04			
5879	No. 419.	2,038.87		7,301.84	9,340.71	1,007.64	48.57	8,386.04			
5880	No. 420.						7.73	7.73			
5881	No. 421.			5,854.43	5,854.43			5,854.43			
5882	No. 422.			4,104.71	4,104.71			4,104.71			
5883	No. 423.			4,621.26	4,621.26	6,673.04		11,294.30	77	Dec. 31, 1918	12
5884	No. 424.			3,616.51	3,616.51	76.29		3,692.80	77	Dec. 1, 1918	12
5885	No. 425.			6,284.03	6,284.03	362.05		6,646.08	77	Jan. 8, 1919	
5886	No. 426.			2,268.13	2,268.13	63.00		2,331.13	77	Jan. 8, 1919	
5887	No. 427.			2,268.13	2,268.13	63.00		2,331.13	77	Jan. 8, 1919	
5888	No. 428.			1,878.94	1,878.94	63.00		1,941.94	77	Dec. 23, 1918	
5889	No. 429.			81.60	81.60			81.60	77	Jan. 15, 1919	
5890	No. 430.	12.00		1,515.53	1,527.53	38.95		1,566.48			
5891	No. 431.			1,515.53	1,515.53			1,515.53			
5892	No. 432.	985.22		138.78	1,123.78	102.74		1,226.52	77	Jan. 11, 1919	
5893	No. 433.	1,144.06		646.85	1,790.91			1,790.91			

8043	No. 443.....	8,178.20	12.72	26,003.75	34,197.76	822.60	339.70	31.04	77	Aug. 26, 1919	12
8044	No. 444.....	9,443.17	26.68	34,008.89	43,478.24	2,055.89	2,346.73	47,880.36	77	do.....	12
	Submarine chaser, out of commission.....			10,971.12	10,971.12			10,971.12			
	Total.....	289,885.81	22,644.48	713,494.65	1,025,924.94	99,599.96	406,191.45	1,531,688.35			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alteration to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SUBMARINE CHASERS.											
5501	No. 1.....			\$28.56	\$28.56			\$28.56			92
5508	No. 8.....		\$7.20		7.20			7.20			92
5540	No. 40.....						\$60.18	60.18			92
5541	No. 41.....						445.38	445.38			92
5551	No. 51.....		3.00		3.00			3.00			92
5553	No. 53.....			7.32	7.32			7.32			92
5557	No. 57.....			51.04	51.04			51.04			92
5558	No. 58.....			89.20	89.20		1,724.75	89.20			92
5562	No. 62.....	\$1,676.30		1,872.03	5,548.33			5,548.33			92
5563	No. 63.....		183.81	4,065.63	4,249.44	\$244.19	77.68	4,512.28			92
5564	No. 64.....		112.50	4,064.76	4,167.26	263.27	74.38	4,504.60			92
5568	No. 68.....					\$ 4.50		\$ 4.50			92
5569	No. 69.....	556.60	401.00	439.50	1,397.30	129.30		1,526.30			92
5570	No. 70.....					4.50		4.50			92
5571	No. 71.....		2.81	3,291.39	3,294.20	6.00	259.08	3,559.28			11
5572	No. 72.....					\$ 4.50		\$ 4.50			92
5573	No. 73.....					\$ 4.50		\$ 4.50			92

* Credit.

¹ In commission for 98 days except otherwise noted.

1922—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
SUBMARINE CHASERS—contd.										
5574	No. 74					\$4.50		\$4.50		92
5585	No. 85							121.16		92
5593	No. 93							26.88		92
5596	No. 96	\$3,554.19		\$3,933.21	\$7,487.40			8,639.20		92
5598	No. 98							61.04		92
5600	No. 100							50		92
5602	No. 102							549.71		
5603	No. 103							2,583.50		
5604	No. 104	729.00	\$91.20	909.36	1,000.56	1,545.77	47.17	1,722.08		
5606	No. 106		520.00	470.50	1,719.50	2.56		394.20		
5619	No. 119	469.15		394.20	547.45			728.26		
5620	No. 120			78.30	107.00	4.97	175.83	107.00		
5624	No. 124		107.00					508.00		
5639	No. 130							508.00		
5634	No. 134					1,953.97		1,953.97		
5635	No. 135					22.55		22.55		
5637	No. 137							20		92
5643	No. 143		136.80			493.54	40.50	1,371.33		
5645	No. 145					\$ 4.50		287.08		92
5654	No. 154		1,602.00			297.75	2,995.88	6,340.28		
5656	No. 156						5,098.75	5,098.75		92
5659	No. 159						398.95	2,978.92		92
5669	No. 169	544.37		1,867.77	2,412.14	165.83		6.01		92
5677	No. 177			6.01	638.09			609.51		
5680	No. 180		1.50			31.42		1.50		92
5685	No. 185							75.00		92
5686	No. 186							1,146.17		92
5690	No. 190	503.58		642.59	1,146.17			2,020.79		36
5691	No. 191			67.38	87.38	1,953.41		985.83		92
5692	No. 192			298.33	298.33	507.57	179.93	219.21	56	92
				\$ 177.30	\$ 177.30		306.54			92

1923 - Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SUBMARINE CHASERS contd.											
5330	No. 330.			\$2,193.85	\$2,193.85	\$623.99	\$1,306.94	\$4,124.68			92
5338	No. 338.	\$3,732.46	\$6.83	5,598.45	9,357.74	59.19		9,416.93			
5340	No. 340.	2,780.21		1,919.54	4,699.75		181.35	4,881.10			
5341	No. 341.	2,660.79		1,518.09	4,178.88	145.90	248.85	4,572.70			
5344	No. 344.										
5345	No. 345.					1.00		1.00			
5353	No. 353.										
5368	No. 368.			16.12	16.12		7.04	7.04			92
5368	No. 368.		2,389.61	2,958.20	5,347.81	1,281.97	705.06	7,335.76			
5312	No. 412.	1,550.68	119.82	7,312.69	8,964.39	320.17	54.85	9,359.41			
5313	No. 413.			76.70	76.70		Cr. 239.97	Cr. 163.27			92
5319	No. 419.		166.50	2,903.50	3,070.00	580.43		3,659.43			92
5324	No. 424.	332.18		332.18	3,332.18			3,332.18			
5325	No. 425.			6.88	6.88			143.24			
5326	No. 426.					136.36		2,119.81			92
5329	No. 429.							1.42			
5332	No. 432.	2,284.27	30.00	983.67	3,277.94	244.80	812.39	4,335.13			
5339	No. 439.			1,720.94	1,720.94	194.61		1,915.55			
5340	No. 440.			172.90	172.90		617.23	790.13			
5341	No. 441.			265.20	265.20		11.49	266.69			
5343	No. 443.	3,974.07		74.92	4,048.99			4,048.99			
5344	No. 444.	4,208.04		46.60	4,255.64			4,255.64			
	Total.	56,402.08	7,418.48	85,663.33	149,483.89	20,444.64	34,016.74	203,945.27			

EAGLE BOATS.

KELLEY. Now we go to the Eagle boats. How much did the boats cost for upkeep in 1921?

miral POTTER. In 1921, for 60 Eagle boats, \$4,280,343.92.

KELLEY. There are 60 in all?

miral POTTER. Yes, sir.

KELLEY. What is the total for the first three months of 1922?

miral POTTER. \$1,012,848.11.

KELLEY. And if you multiply that by 4?

miral POTTER. That would be \$4,049,000.

KELLEY. That would indicate a larger use of the Eagle boats last year, with the reduced price of fuel.

miral POTTER. Assuming that was done for the rest of the year.

KELLEY. Assuming that during the rest of the year they went on at the same rate.

miral POTTER. Yes.

ROOSEVELT. But there is not the same number of these boats in service; we either sell them or put them out of commission.

KELLEY. I notice one you have here, *No. 33*. Is that one that is used as a sort of lodging house?

REED. Yes, sir; she is at the submarine base at Hampton Roads.

KELLEY. And the same thing is true of the others, where the expenses seem so excessive?

miral POTTER. Yes. *No. 31* is used at Coco Solo, and another *No. 17*, is at Hampton Roads, and the same thing applies.

KELLEY. Take *No. 11*; that is in ordinary service, is it?

ROOSEVELT. *No. 11* is in the same situation as *No. 31*; she is in service with the submarines at San Pedro.

KELLEY. What is she doing there?

ROOSEVELT. She is a sort of a houseboat, as I recall.

miral POTTER. Probably she carries the accounts of some others.

KELLEY. It is not so much greater than some of the others; the expense is only \$13,000.

REED. In the case of *No. 17*, *No. 31*, and *No. 33*, they are the only ships; they are assigned to the stations, and the accounts of the personnel are carried.

KELLEY. At Coco Solo and New London?

REED. Yes, sir; but these others only carry the accounts of the crews themselves.

KELLEY. The accounts of these particular ships?

REED. Yes, sir.

ROOSEVELT. I do not know how the accounts are kept but she does some work.

REED. At Coco Solo—*No. 31*—the amount, including pay, is \$10,000, while the others run \$9,000, \$12,000, and \$13,000.

KELLEY. \$39,033.29 appears to be the total maintenance of

ROOSEVELT. She is the group flagship at Portsmouth.

KELLEY. The total spent on these Eagle boats in the first year was \$1,012,848.11?

miral POTTER. Yes, sir.

KELLEY. At this point put in these tables.

miral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
EAGLE BOATS.											
5301	No. 1	\$15, 116.27	\$273.28	\$17, 728.76	\$33, 118.31	\$832.28	\$773.26	\$34, 728.85	500	Oct. 26, 1918	12
5302	No. 2		27.10	1, 746.60	1, 773.70	6.92	855.12	2, 022.90	500	Nov. 7, 1918	12
5303	No. 3		22.10	1, 298.72	1, 320.82	210.08	729.19	2, 360.09	500	Nov. 11, 1918	12
5304	No. 4		2, 754.33	18, 958.41	64, 283.00	1, 552.61		65, 535.61	500	Nov. 14, 1918	12
5305	No. 5	42, 570.26	16.13	16, 798.39	16, 802.42	1, 168.84		18, 180.17	500	Nov. 18, 1918	12
5306	No. 6		40.00	98, 815.26	98, 216.15	3, 977.00	1, 215.41	114, 462.47	500	Nov. 21, 1918	12
5307	No. 7	28, 360.89	108.54	62, 931.76	102, 700.81	3, 977.00	15, 927.80	117, 865.05	500	Nov. 24, 1918	12
5308	No. 8	39, 660.51	46.00	96, 695.75	108, 708.68	1, 387.85	8, 043.41	117, 039.94	500	Nov. 31, 1919	12
5309	No. 9	38, 197.87	46.00	19, 420.37	26, 011.19	1, 144.80	8, 061.23	35, 817.22	500	Oct. 27, 1919	12
5310	No. 10	6, 544.82	34.88	55, 772.65	95, 396.74	4, 555.73	8, 461.12	104, 398.50	500	Oct. 31, 1919	11
5311	No. 11	39, 559.11	517.50	41, 611.82	108, 586.41	1, 612.16	3, 777.24	116, 919.38	500	May 20, 1919	12
5312	No. 12	6, 457.09	34.88	47, 791.13	83, 673.55	709.68	9, 872.77	95, 158.48	500	Nov. 6, 1919	12
5313	No. 13	1, 191.15		6, 597.27	6, 597.27	11, 531.08	11, 521.08	18, 898.03	500	Apr. 2, 1919	12
5314	No. 14	56, 796.77		56, 796.77	126, 210.43	2, 294.48	15, 680.68	144, 191.59	500	June 17, 1919	12
5315	No. 15	61, 062.35	8, 351.31	37, 706.30	37, 731.30	2, 787.15	11, 928.57	52, 447.02	500	June 11, 1919	12
5316	No. 16		25.00			7.69	18.75	382, 852.55	500	June 5, 1919	12
5317	No. 17	316, 020.89	4.25	37, 022.83	353, 047.97	10, 933.45	18, 851.13	382, 852.55	500	July 3, 1919	12
5318	No. 18			1, 998.29	87.34	491.63	11, 522.69	2, 577.20	500	Aug. 7, 1919	12
5319	No. 19		190.96	38, 080.04	38, 281.00	3, 512.07	11, 522.69	53, 315.76	500	June 25, 1919	12
5320	No. 20					816.81	2.20	816.81			
5321	No. 21					7.69		6.89			
5322	No. 22					7.69		3, 585.52			
5323	No. 23	16, 894.17	139.15	28, 301.94	45, 305.26	2, 130.33	3, 692.41	53, 583.52	500	June 19, 1919	12
5324	No. 24			1, 526.55	1, 526.55	81.04	8, 132.87	53, 586.40	500	July 12, 1919	12
5325	No. 25	31, 517.49	120.70	6, 596.94	38, 228.13	10, 434.92	2, 298.64	3, 908.23	500	July 12, 1919	6
5326	No. 26			9, 145.36	9, 145.36	990.41	68, 953.79	117, 038.94	500	Oct. 1, 1919	12
5327	No. 27			4, 898.75	4, 898.75	999.38	11, 171.80	21, 307.57	500	Oct. 1, 1919	12
5328	No. 28			1, 168.73	1, 168.73	6.10	9, 392.95	15, 251.06	500	July 4, 1919	12
5329	No. 29			89, 688.92	60, 354.26	2, 316.86	9, 998.74	72, 671.64	500	July 28, 1919	12
5330	No. 30				479, 378.10	7.69		6.89	500	Aug. 20, 1919	12
5331	No. 31	445, 821.02	3, 900.65	28, 565.53	479, 378.10	189, 806.96	2, 248.78	671, 383.86	500	Aug. 14, 1919	12
5332	No. 32	50, 686.90	4, 980.22	25, 242.55	60, 999.27	12, 446.61	5, 091.45	90, 253.97	500	Sept. 4, 1919	12
5333	No. 33	29, 040.40		38, 560.74	60, 991.46	12, 062.67	14, 477.89	83, 108.31	500	Sept. 8, 1919	12
5334	No. 34	31, 240.67	418.96	35, 174.90	66, 334.15	53, 219.68	14, 168.23	107, 028.20	500	Aug. 23, 1919	12
5335	No. 35	45, 138.13	418.96	45, 068.99	90, 244.18	53, 219.68	14, 168.23	107, 028.20	500	Aug. 23, 1919	12
5336	No. 36	17, 928.69	418.96	41, 244.18	44, 718.18	1, 728.81	15, 466.70	117, 034.63	500	Aug. 23, 1919	11
5337	No. 37			11, 891.77	44, 718.18			44, 568.97	500	Sept. 30, 1919	11

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

No. 41	3,149.35	292.40	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 42	17,262.11	539.30	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 43	23,822.16	539.30	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 44	23,822.16	539.30	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 45	3,149.35	292.40	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 46	60,658.67	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 47	47,792.50	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 48	9,239.39	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 49	43,974.25	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 50	1,464.24	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 51	13,800.50	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 52	5,094.48	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 53	36,532.39	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 54	12,332.34	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 55	5,740.05	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 56	13,061.29	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 57	37,659.92	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 58	73,656.43	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 59	16,150.05	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
No. 60	21,243.67	498.83	539.30	32,296.59	115.80	100,398.71	498.83	6,776.42	6,776.42	41,471.09	132.40	550.00	84.40	12,985.09	5.00	32,326.67	4,177.47	39,540.79	1,696.96	52,600.79	1,904,291.59
Ford Motor Co. (Eagle boats)	190.75	45,780.33																			
Total	1,497,367.96	45,780.33	1,904,291.59																		

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
EAGLE BOATS.										
5301	No. 1			\$767.94	\$767.94		\$299.21	\$738.73		\$92
5302	No. 2			507.14	507.14		\$15.56	491.58		\$92
5303	No. 3			604.16	604.16		18.79	622.95		\$93
5304	No. 4	\$9,083.57	\$276.60	2,304.97	11,665.14	\$107.86	1,251.30	13,024.30		
5305	No. 5			793.68	793.68		85.20	878.88		\$92
5306	No. 6	12,522.09	120.61	7,629.36	20,272.06	1.35	2,675.73	22,949.14		
5307	No. 7	12,099.26	1.75	7,682.15	19,783.16	664.06	2,749.66	21,196.88		
5308	No. 8	12,131.98	18.47	5,352.97	17,503.42	674.64	2,790.39	20,977.39		
5309	No. 9	9,142.82	562.05	7,254.78	16,969.65	1,302.65	36.21	18,328.51		
5310	No. 10		2.70	153.53	156.23	323.14	357.34	838.71		
5311	No. 11	13,173.36	300.96	8,926.70	22,401.02	1,015.13		23,416.15		
5312	No. 12	3,000.01	19.20	6,524.11	9,543.32	53.95		9,597.27		
5313	No. 13		643.30	4,104.50	4,747.80	1,140.33		5,888.13		
5314	No. 14	12,040.59		4,742.31	16,791.90	6.60	747.80	17,546.30		
5315	No. 15		225.81	8,117.06	8,342.87	531.54	380.41	9,254.82		\$92
5316	No. 17, Submarine base, Hampton Roads.	68,951.65		14,373.20	83,324.85	225.68		83,550.53		\$92
5318	No. 18			541.00	541.00	138.79	41.40	721.19		\$92
5319	No. 19		183.80	16,761.93	16,945.73	196.73	344.02	17,486.48		
5320	No. 20	8,946.85		12,272.24	21,219.09	3,062.59	50.16	24,331.94		
5321	No. 21			315.25	315.25		2,219.61	2,534.86		\$92
5322	No. 22			315.61	315.61	650.85	11.24	962.09		\$92
5323	No. 23		335.24	8,693.44	8,923.69	2,413.21	176.93	11,413.83		
5324	No. 24		220.25	6,073.20	6,217.18	3,494.55	32.21	9,833.94		\$92
5325	No. 25		143.96	15.76	15.76	19.25		35.01		\$92
5326	No. 26			12,303.01	12,420.78	262.25	524.09	13,197.13		
5327	No. 27		117.77			167.49	2,069.48	2,236.97		
5328	No. 28									
5329	No. 29									
5330	No. 30									
5331	No. 31, Submarine base, Coco Solo.	126,130.89		946.22	126,977.11	847.23		127,824.34		\$92

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

97

N. 40.	15, 083.63	88.92	0, 590.01	21, 750.56	316.93	1, 149.64	23, 217.03
N. 41.			397.13	397.13	16.25		413.38
N. 42.			10, 877.09	11, 574.79	394.50	88.67	12, 057.99
N. 43.		697.70	36.28	36.28		103.95	140.23
N. 44.		326.35	18, 030.06	18, 356.41	5, 890.04	272.17	24, 458.62
N. 45.			612.32	612.32			612.32
N. 46.	28, 028.21	315.66	9, 850.30	36, 194.17	245.35	963.77	39, 083.29
N. 47.	2, 763.53	.90	7, 107.26	9, 871.69	506.50	72.64	10, 452.03
N. 48.			170.54	170.54	201.81	1, 922.91	2, 485.21
N. 49.		91.56	263.50	3, 655.26	273.66	2, 302.00	3, 951.57
N. 50.			11, 443.58	11, 661.78	297.75	2, 022.43	12, 952.08
N. 51.		240.19	4, 439.26	5, 535.96	297.75	1, 932.68	5, 994.45
N. 52.	1, 046.70		70.61	6, 535.96	1, 293.93	2, 164.82	8, 994.45
N. 53.			79.61	618.69	263.12		
N. 54.		464.35	6, 908.27	7, 372.62	468.27		7, 940.90
N. 55.			90.00	90.00	814.54	1, 919.15	2, 823.69
N. 56.			4, 703.94	4, 703.94	1, 103.06	1, 996.49	7, 803.49
N. 57.	7, 216.18	3, 897.41	4, 705.96	15, 789.65	1, 035.43	3, 30.82	16, 394.16
N. 58.	12, 507.52	130.50	4, 067.17	16, 705.19	1.35	3, 945.40	20, 651.04
N. 59.		228.05	7, 169.70	7, 397.75	746.45	29.28	8, 173.46
N. 60.	11, 752.69	77.50	3, 505.69	15, 335.88	316.53	537.01	16, 189.42
Total.	639, 612.24	14, 600.33	290, 674.95	944, 887.52	31, 797.64	36, 162.95	1, 012, 948.11

TENDERS TO TORPEDO VESSELS.

Mr. KELLEY. Now, tenders to torpedo boats. What did they cost in 1916?

Admiral POTTER. In 1916?

Mr. KELLEY. I do not think it will be specially valuable to go back to 1916 as to the torpedo boats, because the numbers are different; therefore, let us take last year and this year and make plans for the future based on those two years.

Mr. OLIVER. I think the relative cost of operation might be pertinent.

Mr. KELLEY. That might be, and we will take some particular vessel.

Admiral POTTER. In 1921 there were 19 tenders to torpedo boats and the total cost of them was \$10,611,302.85.

Mr. KELLEY. Those were the ships accompanying the destroyers?

Admiral POTTER. Yes, sir.

Mr. KELLEY. From which the repairs were made?

Admiral POTTER. Yes, sir; and from which supplies were furnished?

Mr. KELLEY. Supplies and repairs?

Admiral POTTER. Yes, sir.

Mr. KELLEY. It does not include the oil?

Admiral POTTER. Not the oil furnished by the regular tankers.

Col. ROOSEVELT. Am I not correct in saying that in addition to those functions they are really the upkeep end of the destroyers?

Admiral POTTER. Absolutely; yes, sir.

Col. ROOSEVELT. If you will recall, when we had up the question of the expense of the ration the fact was brought out that the little boats are particularly expensive because we have no supply off on board the little boats.

Mr. KELLEY. The stores are carried on these tenders?

Admiral POTTER. The reserve stores, as it were.

Mr. KELLEY. And you have an officer there who serves the stores out to the various ships that make application?

Admiral POTTER. Yes; that is correct.

Mr. KELLEY. And each officer keeps track of what he issues on each ship?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Last year this service cost \$10,611,302.85?

Admiral POTTER. The total operation and maintenance; yes.

Mr. KELLEY. What did the tenders cost during the first 6 months of 1922?

Admiral POTTER. Eighteen tenders, \$1,782,532.90. If that went on at the same rate during the rest of the year it would be little more than \$7,000,000.

Mr. KELLEY. If the destroyers were operating as they were operating during the first quarter, and these ships were kept in commission for the purpose of making necessary repairs and issuing supplies, it would be about \$7,000,000 a year?

Admiral POTTER. \$7,128,000.

Mr. KELLEY. For this current year?

Admiral POTTER. Yes, sir.

Col. ROOSEVELT. Just for your information there are only 18 in commission now.

Mr. KELLEY. Just at this moment?

Col. ROOSEVELT. Yes; and they will be reduced three more.

Mr. KELLEY. These are the destroyer tenders?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Suppose we take a destroyer that was in full commission in 1916. Was the *Alert* in full commission?

Mr. REED. Yes, sir.

Mr. KELLEY. What about the *Fulton*?

Mr. REED. Because outside accounts are carried on some of these little ships the amounts are very large.

Mr. KELLEY. From the large amounts that appear here I am quite sure there were outside duties.

Admiral POTTER. I can give a comparison between 1921 and 1922, it nothing very good between 1916 and 1922.

Mr. KELLEY. Which one of these others would be comparable with the *Alert*, leaving out of consideration the misleading conclusion you might draw from the amount of the pay?

Admiral POTTER. We can compare the *Alert* throughout, then, if you allow for this pay.

Mr. KELLEY. I am afraid that will not quite do. Is there anything in 1916 that is fairly comparable with the *Beaver* or the *Buffalo* the *Bushnell*?

Col. ROOSEVELT. Would it not be a good idea, Mr. Chairman, if you just ask Admiral Potter if he would look up two comparative prices and furnish you with an answer?

Mr. KELLEY. I think that would be a good suggestion.

Mr. OLIVER. And please insert also the total amount expended on tenders as well as destroyers.

Admiral POTTER. For 1916 the total amount expended on destroyer tenders was \$1,305,685.91.

Mr. OLIVER. And on the destroyers?

Admiral POTTER. On the destroyers themselves?

Mr. OLIVER. Yes, sir; in 1916.

Mr. KELLEY. I think that was given as \$4,000,000 and something.

Admiral POTTER. Destroyers themselves, \$4,231,092.07, and in 1921—

Mr. KELLEY (interposing). The destroyer tenders cost ten times much, because of the very greatly increased number of destroyers. You will put in the record at this point a table of the destroyer tenders?

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.		Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.		
		Accrued pay.	Public vouchers (including committed rations).						Full commission.	Commencement in reserve.	
TENDERS TO TORPEDO VESSELS.											
730	Alert.....	\$94,019.44	\$3,802.77	\$159,032.10	\$9,101.15	\$168,133.25	1,710	No record.	12		
735	Bushnell.....	60,710.14	3,067.78	100,102.31	1,446.24	101,548.55	3,080	Nov. 24, 1915	8		
737	Dixie.....	104,601.72	4,201.48	220,048.10	0,821.24	227,769.34	6,114	Apr. 19, 1904	6		
732	Fulton.....	118,965.56	4,473.17	165,187.20	18,800.00	185,987.20	1,408	Dec. 7, 1914	12		
736	Iris.....	102,652.57	1,008.21	135,506.38	0,804.14	142,400.52	6,100	Apr. 1, 1904	10		
738	Medville.....	118,020.15	4,310.50	208,857.31	1,730.83	210,588.14	7,100	Dec. 3, 1915	7		
850	Panther.....	117,020.03	1,770.02	157,044.85	20,134.83	185,770.68	3,300	Apr. 22, 1904	12		
734	Pompey.....	35,978.55	3,027.08	70,706.10	0,613.01	77,400.11	3,000	May 25, 1904	7		
	Total.....	811,377.76	29,067.00	1,228,134.49	77,551.47	1,305,685.96					
	Equipage.....					\$26,421.49					
	Total.....					1,632,107.46					

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expenses, including commuted rations.	Stores issued, including provisions and medical stores.							
	TENDERS TO TORPEDO BOATS.										
4601	Alert.....	\$1,249,153.22	\$44,207.16	\$40,206.65	\$1,333,567.03	\$72,120.24	\$20,887.51	\$1,426,574.78	1,010	Jan. 25, 1912	12
4612	Beaver.....	247,326.51	9,248.70	153,426.89	410,002.10	35,289.37	58,339.86	505,631.33	5,970	Oct. 1, 1918	12
8505	Buffalo.....	287,193.41	10,615.40	203,184.30	500,993.11	39,955.63	55,942.63	596,991.37	6,000	Nov. 24, 1915	12
4607	Bushnell.....	224,771.07	11,268.09	100,552.91	336,592.07	54,121.71	135,824.46	526,538.24	3,580	.....do.....	12
4602	Dixie.....	484,063.78	33,915.09	224,483.74	742,462.61	85,051.13	151,298.11	978,811.85	6,525	Apr. 19, 1908	12
4610	Dobbin.....		73.50		73.50	3,437.00	1,137.00	4,647.50			
4606	Fulton.....	990,198.92	1,417.44	155,100.39	1,146,726.75	20,744.10	262,119.53	1,369,590.38	1,408	Dec. 7, 1914	12
8902	Hannibal.....	131,115.19	13,692.15	77,395.10	222,202.44	24,492.32	171,352.10	418,046.86	4,000	Oct. 16, 1911	12
4603	Iris.....						4,713.93	4,713.93		Apr. 1, 1908	
8903	Lebanon.....	115,618.90	286.40	49,996.83	165,902.13	37,622.57	121,072.77	324,597.47	3,285	Apr. 16, 1908	12
8904	Leonidas.....	317,792.63	17,786.86	219,712.22	555,291.71	32,571.68	6,253.51	594,121.90	4,023	May 21, 1908	12
4609	Melville.....	748,930.06	20,780.38	221,085.06	729,795.50	126.40	60,083.76	790,005.66	7,150	Dec. 3, 1915	12
4604	Panther.....	257,398.26	14,914.50	217,891.00	490,193.76	35,476.53	75,350.81	601,021.10	3,380	Apr. 22, 1908	12
4605	Pompey.....	36,993.82	2,196.35	70,388.51	109,578.68	14,664.95	75,333.33	199,576.96	3,085	May 26, 1908	12
8509	Prairie.....	470,450.92	22,873.38	177,531.06	670,855.36	53,367.35	69,014.79	793,267.50	6,620	Apr. 14, 1908	12
8805	Prometheus.....	414,090.28	11,292.71	288,895.62	714,278.61	48,028.74	93,507.20	855,814.55	12,585	Jan. 15, 1910	12
8913	Rainbow.....	304,690.65	10,514.49	94,291.66	409,436.80	35,546.81	153,285.49	598,269.10	4,360	July 18, 1908	12
4613	Relief.....			53.80	53.80	22,110.43		22,164.23			
4611	Whitney.....			9.60	9.60		18.54	28.14			
	Total.....	6,018,748.62	225,082.60	2,294,184.34	8,538,015.56	617,746.96	1,455,540.33	10,611,302.85			

1922.

[First quarter.]

No.	Name of vessel.	Title C.		Stores issued, including provisions.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.						Days in full commission.	Operating with reduced complements in reserve of ordinary.	
TENDERS TO TORPEDO BOATS.											
4601	Alert.....	\$51,330.49	\$472.08	\$1,722.06	\$53,524.63	\$35,972.28	\$310.00	\$90,306.91			
4612	Beaver.....	89,321.03		33,134.37	122,455.40	2,631.48	1,715.37	126,802.25			
4506	Buffalo.....	105,851.97	8,902.00	35,121.67	149,875.64	13,597.07	811.74	164,284.45			
4607	Bushnell.....	51,139.85		25,441.41	76,581.26	979.09	3,348.53	80,908.88			
4602	Dixie.....	142,077.28	22.69	11,523.74	153,623.71	22,192.84	2,030.36	177,846.91			
4610	Dobbin.....					2,345.07		2,345.07		92	
4608	Fulton.....	35,080.15	365.08	27,605.62	63,051.85	8,440.52	35,086.02	107,588.39			
4605	Hannibal.....	38,031.43	1,632.14	38,331.70	77,995.27	571.81	1,630.04	80,397.12			
4603	Iris.....						19.70	19.70		92	
4603	Lebanon.....	20,180.29	220.00	13,047.36	33,447.65	1,050.09	88.00	34,565.74			
4604	Leonidas.....	73,814.41		10,185.83	84,000.24	5,176.85	254.57	89,431.66			
4609	Melville.....	106,266.78		54,829.24	161,096.02	8,516.84	2,378.72	171,991.58		92	
4604	Panther.....	53,101.27	1,404.17	40,152.92	94,658.36	5,543.46	6,745.74	106,947.56			
4605	Pompey.....		794.84	4,421.72	5,216.56	1,219.07	3,897.17	10,302.80			
4509	Prairie.....	99,032.03	3,336.73	34,142.81	136,511.57	4,904.97	Cr. 8,135.14	133,281.40		92	
4605	Prometheus.....	95,808.98	2,923.29	65,529.80	164,262.13	32,894.29	53,273.80	250,430.22			
4613	Rainbow.....	87,206.27		46,189.56	133,395.83	20,187.84	1,467.85	155,051.52		92	
	Relief.....					10.64		10.64			
	Total.....	1,045,242.33	20,073.02	441,380.87	1,506,696.22	166,234.21	106,602.41	1,782,532.90			

¹ All tenders in commission 92 days except otherwise shown.

* Reserve.

GUNBOATS.

∴ KELLLEY. What was the total expense for gunboats in 1916?

Admiral POTTER. \$2,958,721.98; and in 1921, sir?

∴ KELLLEY. Yes, sir; in 1921.

Admiral POTTER. In 1921, \$3,879,498.

∴ KELLLEY. And for 1922, the first quarter?

Admiral POTTER. For 1922, the first quarter, \$699,566.64.

∴ KELLLEY. Please put in the record at this point a list of guns for 1916, 1921, and 1922.

Admiral POTTER. Yes, sir.

1918.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Tonnage.	Date of first commission.	Months in commission.		
		Accrued pay.	Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).					Full commission.	Commission in reserve.	
GUNBOATS.											
412	Annapolis.....	\$92,601.11	\$1,886.14	\$43,857.94	\$138,345.19	\$12,377.48	\$150,722.67	1,010	July 20, 1897	12	
403	Callao.....	14,079.06	1,534.36	5,107.48	20,720.90	488.00	21,208.90	243	July 31, 1898	6	
420	Castine.....	94,741.38	2,236.99	52,944.28	149,922.65	7,885.55	157,818.20	1,177	Oct. 22, 1894	12	
428	Concord.....					195.59			Feb. 14, 1891		
427	Dolphin.....	118,130.93	5,098.03	40,305.67	163,534.63	14,744.50	178,279.13	1,486	Dec. 8, 1885	12	
419	Don Juan de Austria.....		1,069.07	1,580.07	2,649.87	4,674.16	7,324.03	1,130	Apr. 11, 1900		
417	Dubuque.....	87,969.55	1,156.68	39,340.96	128,467.19	22,138.51	150,605.70	1,085	June 3, 1905	11	1
408	Elcano.....	53,216.66	9,141.30	54,171.80	116,529.76	4,430.47	120,960.23	620	Nov. 20, 1902	12	
424	Helena.....	120,213.42	27,543.61	51,491.92	199,248.95	5,811.77	205,060.72	1,392	July 8, 1897	12	
416	Ile de Luzon.....		1,765.38	5,606.70	7,372.08	8,244.76	8,244.76	1,080	Jan. 31, 1900		
421	Macias.....	94,326.64	1,375.46	46,809.00	142,511.10	4,473.79	146,984.89	1,177	July 20, 1893	12	
410	Marietta.....	94,522.74	1,248.22	46,123.37	141,894.33	7,433.91	142,638.24	1,090	Sept. 1, 1897	12	
401	Monocacy.....	30,724.30	7,591.07	12,022.50	50,307.87	7,624.12	57,931.99	190	June 24, 1914	12	
423	Nashville.....	101,453.04	2,331.82	37,330.91	141,116.37	34,561.71	175,678.08	1,371	Aug. 19, 1897	10	
413	Newport.....					6,431.70	6,431.70	1,010	Oct. 5, 1897		
418	Paducah.....	133,500.26	6,596.39	67,292.13	207,388.78	25,800.12	233,188.90	1,085	Sept. 2, 1905	12	
402	Palos.....	32,021.48	5,841.68	11,363.15	49,256.31	9,388.78	49,595.02	190	June 24, 1914	12	
404	Pampango.....	6,583.57	808.82	5,468.46	12,860.85	22,249.63	22,249.63	243	June 8, 1899	12	
409	Petrel.....	61,040.24	1,159.45	26,426.52	89,226.21	24,950.72	114,176.93	890	Dec. 10, 1889	7	5
414	Princeton.....	30,677.94	1,099.62	17,184.27	49,061.83	1,189.99	56,251.82	1,010	May 27, 1898	9	
406	Queros.....	24,749.50	4,784.55	12,582.61	42,116.66	1,358.53	42,475.19	350	Mar. 14, 1900	12	
422	Ranger.....					14,072.83	14,072.83	1,261	No record		
426	Sacramento.....	87,455.04	2,674.41	38,594.02	128,723.47	29,578.43	158,301.90	1,243	Apr. 26, 1914	12	
405	Samar.....	27,094.50	4,598.49	10,084.42	41,777.41	3,889.20	45,666.61	1,243	May 26, 1899	12	
400	Sandoval.....		952.75	466.67	1,419.42	1,133.47	2,552.89	1,000	Sept. 2, 1898		
415	Vicksburg.....	922.28	19,593.42	13,359.27	42,320.58	55,037.69	97,338.27	1,010	Oct. 23, 1897		12
407	Villalobos.....	21,804.88	5,420.60	13,559.27	31,898.85	3,574.18	55,473.03	370	Mar. 5, 1900	12	
411	Wheeling.....	70,259.27	1,164.08	34,554.02	105,977.37	23,648.54	129,625.91	990	Aug. 10, 1897	12	
425	Wilmington.....	131,695.70	12,777.06	45,297.52	189,000.28	14,380.76	204,071.04	1,392	May 13, 1897	12	
429	Yorktown.....	110,988.95	1,813.98	64,777.70	177,580.63	31,996.55	209,577.18	1,710	Apr. 23, 1899	12	
Total		1,673,569.74	114,613.02	803,726.78	2,591,919.54	336,802.44	2,958,521.98				
Equipage.....							790,680.50				

12 MONTHS 40000 2400

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including rations.	Stores issued, including provisions and medical stores.							
GUNBOATS.											
3710	Annapolis.			\$491.11	\$491.11	\$14,797.48	\$24,958.88	\$40,247.47	1,010	July 10, 1897	
3721	Asheville.	\$157,647.86	\$5,576.05	114,308.03	277,531.94	108,781.57	21,287.36	407,600.57	1,575	July 20, 1897	
3706	Cadmus.			28,746.08	28,746.08	1,451.82	1,519.48	31,017.38	1,177	Oct. 22, 1894	
3751	Dolphin.	197,317.57	15,134.38	105,480.95	317,932.90	17,152.48	45,594.45	380,679.83	1,486	Dec. 8, 1885	12
3752	Don Juan De Austria.		3.56		3.56	1,546.70	804.33	2,354.59	1,130	Apr. 11, 1900	
3717	Dubuque.			40,334.97	152,958.74	53,210.00	4,960.92	172,957.99	1,085	Jan. 3, 1905	
3753	Eleanore.	91,092.93	21,020.84	29,429.34	37,901.19	9,526.99	10,502.26	48,493.45	1,820	Nov. 11, 1902	12
8906	Essex.	5,326.15	3,145.70	11,199.70	27,229.60	35,657.84	138.98	73,698.01	1,375	June 24, 1917	12
8907	Gopher.	13,745.94	2,283.96	11,199.70	27,229.60	9,854.00		37,083.60	1,840	Apr. 14, 1917	12
3709	Helena.	204,505.19	10,313.57	110,821.64	325,640.40	25,988.10	24,412.12	376,040.62	1,392	July 8, 1897	12
3754	Ile de Luzon.							376,040.62	1,030	Jan. 31, 1900	
3705	Macbias.		78.26	13,818.16	13,896.42	202.22	10,548.40	24,647.04	1,177	July 20, 1897	
3715	Marietta.			24,398.30	24,398.30	204.50	153.19	24,755.99	1,990	Sept. 1, 1897	12
3720	Monocacy.			14,451.74	104,737.50	9,639.13	19,709.16	134,085.79	1,261	June 24, 1914	12
3757	Nantucket.	59,108.88	31,176.88	14,451.74	104,737.50	6,110.20	16,941.10	23,293.06	1,371	Aug. 19, 1897	
3707	Nashville.			33,536.40	35,367.18	6,144.50	373.77	35,885.45	1,085	Oct. 5, 1897	
3712	Newport.			413.44	413.44	10,368.47	29,946.94	40,728.85	1,010	Sept. 2, 1905	
3718	Paducah.	124,569.47	5,251.94	102,706.99	232,528.40	249,952.60	106,406.79	588,887.79	1,900	June 24, 1914	12
3716	Palos.	47,542.04	28,621.93	23,757.75	109,831.72	11,741.77	11,975.61	133,549.10	243	June 8, 1899	12
3755	Pampanga.	26,837.32	2,467.30	28,320.44	57,625.06	8,141.05	4,669.34	70,435.45	890	Dec. 10, 1889	
3702	Petrel.			22.31	22.31	108.86	727.17	838.34	350	Mar. 14, 1900	12
3756	Quiros.	51,414.66	11,589.23	10,067.41	73,071.30	6,101.92	6,964.44	86,137.66	1,425	Apr. 26, 1914	12
3719	Sacramento.	167,445.07	6,000.55	188,393.13	361,748.75	28,461.12	84,738.70	474,948.61	1,243	Mar. 26, 1899	2
3758	Samar.	4,166.27	2,334.30	4,614.58	11,115.15	1,135.41	71.37	12,321.93	100	Sept. 2, 1898	
3759	Sandoval.		6.65	28.89	35.54			35.54			
3722	Tulsa.					1,500.00		1,500.00			
3711	Vicksburg.			17,276.81	17,276.81	207.01	2,832.65	20,316.47	1,010	Oct. 23, 1897	12
3700	Villalobos.	61,762.07	23,457.85	21,826.35	107,076.27	13,116.48	3,844.50	134,037.25	970	Mar. 5, 1900	
3714	Wheloe.	21,155.04	2,765.58	46,815.66	70,766.28	54,454.30	7,386.87	132,607.45	990	Aug. 10, 1897	12
3701	Wilmette.	2,058.00	1,693.93	27,641.10	31,393.03	3,199.81	8,854.20	43,247.44	2,600	Sept. 25, 1918	
3708	Wilmington.	126,964.57	9,226.47	67,296.39	203,487.43	30,478.28	33,248.73	267,214.44	1,392	May 13, 1897	12
8919	Wolverine.		645.95	8,142.95	9,454.65	411.53	1.66	9,867.84	900	July 4, 1911	
8920	Yantic.	5,908.84	4,013.33	5,994.34	15,976.51	7,740.90	3,407.00	27,124.41	900	Apr. 4, 1917	
3701	Yorktown.		58.55	1,013.03	1,071.58		21,446.86	22,518.44	1,710	Apr. 23, 1898	
Total.		1,379,723.82	188,747.34	1,081,499.75	2,649,970.91	721,387.08	508,140.01	3,879,498.00			

1922.

[First quarter.]

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Days in full commission.	Status. ¹
		Accrued pay.	Miscellaneous expense, including commuted rations.						
GUNBOATS.									
3710	Annapolis				\$47.50	\$4,773.07	\$4,820.57		92
3721	Asheville	\$38,104.89	\$1,272.96	\$55,475.82	4,300.70	4,341.16	64,326.08		
3751	Dolphin	51,175.93	2,839.33	87,756.52	123.56	798.66	88,678.74		
3752	Don Juan de Austria					84.90	84.90		92
3753	Eleano	20,683.27	7,272.93	38,158.37	1,261.52	120.84	39,540.73		
3846	Essex	8,983.97	45.00	17,276.98	2,480.14	7,107.62	26,873.74		
3847	Grolier	18,739.80	195.09	21,131.56	1,680.35	2,929.10	29,741.01		
3769	Hecla	14,692.07	6,270.34	24,933.10	131.35	327.38	25,411.83	41	51
3765	Nachlas					115.76			92
3720	Monoway	19,010.94	4,363.90	27,067.00	1,264.37	1,268.28	29,583.74		
3757	Nantucket				3,042.15	3,329.71	6,371.86		92
3712	Newport				1,033.00	291.60	1,265.20		92
3718	Pahoa	24,848.95		33,517.21	1,453.11	2,049.17	37,019.49	71	
3716	Palo	14,472.99	9,006.56	28,933.91	5,307.02	1,103.20	35,108.13		
3755	Pampanga	18,931.60	1,241.42	14,851.34	2,325.89	14.20	20,685.33		
3756	Queros	13,850.40	3,334.74	17,191.95	1,576.70	1,913.38	20,685.33		
3719	Sacramento	41,166.48	1,064.17	63,485.01	4,876.80	5,915.36	73,487.97		
3735	Samar		11.04	11.04		723.15	723.15		92
3711	Vicksburg	14,398.72		20,710.73	1,933.06	40.70	22,735.99		
3760	Villalobos	12,100.04	1,641.03	16,108.53	229.89	1,428.40	17,796.82		
3714	Wheeling	18,833.62	30,717.25	49,938.70	1,927.80	222.24	83,088.74		
3761	Wilmette	47,644.19	2,944.71	77,726.07	1,013.27	4,260.63	95,010.27		
3768	Wilmington			6,902.77	511.94		7,414.45		
3919	Wolverine	2,791.88	4,116.89	6,902.77	639.17	1,074.97	14,741.29		
3820	Yantic	792.00	11,800.15	13,077.15		542.20	542.20		92
3701	Yorktown								
Total		371,205.34	42,497.22	618,723.28	35,976.63	44,807.43	999,566.04		

¹ All gunboats in commission 92 days unless otherwise shown.

l. ROOSEVELT. They are practically all in China, doing work there; in fact, all of them.

∴ KELLEY. Now, the transports?

Imiral POTTER. In 1916, \$751,342.17.

∴ KELLEY. And for 1921?

Imiral POTTER. For 1921, \$2,945,391, and for the first three months of 1922, \$260,309.31.

TRANSPORTS.

r. DAVIS. How many transports have you?

l. ROOSEVELT. We have four in commission.

Imiral POTTER. We have four in commission, but we have accumulated charges for 14.

∴ KELLEY. I was a little curious to know what happened to the *Henson* in 1921, \$413,763.35 for repairs.

Imiral POTTER. I do not know the reason. She went on the so Domingo route.

∴ KELLEY. Do you remember anything about it?

l. ROOSEVELT. No, sir; I do not. The *Henderson* has not been heard since, I recall.

∴ KELLEY. This was before your time.

l. ROOSEVELT. That is why I can not give you an answer.

Imiral POTTER. The figures you read are correct, but I do not know the reason.

∴ KELLEY. The *Great Northern* has been eliminated from the list entirely?

∴ ROOSEVELT. Yes, sir.

∴ KELLEY. You will put in the list of transports and the tables for the three periods which we are discussing?

Imiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Total operating expenses.					Full commission.	Commission in reserve.
TRANSPORTS.											
752	Buffalo.....	\$74,782.12	\$2,769.50	\$73,933.23	\$151,184.85	\$62,599.67	\$213,784.52	6,000	July 18, 1898		7
750	General Alava.....			3,813.72	3,813.72	25,885.94	29,699.66	1,115	Mar. 19, 1900		
754	Hancock.....	111,228.42	4,356.91	53,053.04	168,638.37	87,923.22	256,561.59	8,500	Nov. 20, 1902		12
755	Henderson.....							10,000	Building.....		
753	Patrie.....	127,844.17	4,983.66	70,933.93	203,761.76	47,534.64	251,296.40	6,620	Apr. 14, 1898		12
	Total.....	313,854.71	12,110.07	201,433.92	527,398.70	223,943.47	751,342.17				
Equipage.....											
	Total.....						187,835.54				
	Total.....						939,177.71				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
TRANSPORTS.											
1042	Ancon.....			\$4,006.59	\$4,006.59		\$1,443.12	\$5,449.71			
1046	Antilles.....						60				
8811	Charles.....			39,093.95	39,093.95		19,927.12	59,024.07			12
1344	Eben.....			3,716.49	3,716.49		41.01	3,757.50			
1367	Finland.....			6,238.05	6,238.05	\$22.00	34,491.17	40,861.22			
1368	Florida.....			4.43	4.63		5,846.60	5,851.23			
6807	General Alava.....			26,764.45	26,764.45	6,617.65	17,861.13	57,862.18	1,115	May 2, 1920	
1408	Great Northern.....		\$5,288.91	26,002.93	31,291.84	81.04	26,268.28	26,449.32	9,708	Nov. 2, 1917	

1655	Leona	2, 107.37	1. 12	57.24	3, 900.73	5, 555.24	7, 080	Apr. 24, 1918
1673	Louisville	100, 504.78	.04		6, 547.02	6, 546.96	10, 275	Apr. 27, 1918
1715	Mallory, Henry H.	192.91		1, 136.06	44, 235.27	205, 008.82	10, 910	Apr. 17, 1918
1718	Manchuria	26.00			27, 759.02	29, 252.53	27, 000	Apr. 25, 1918
1804	Marica	60.00			3, 555.06	3, 584.68		
1738	Mattsonia	5, 580.49			9, 735.47	60.00	16, 800	Mar. 1, 1918
1777	Maul	302.63			33, 492.50	33, 795.13	17, 500	Mar. 8, 1918
8759	Mongolia	30, 862.64			18, 125.46	49, 158.30	27, 000	May 28, 1918
8513	Narragansett	57, 098.90			1, 049.54	58, 148.44		
1848	Norpatin	7, 413.11		160.00	1, 222.06	9, 097.61		do.
1891	Northern Pacific	4, 088.06			33, 588.67	37, 156.73	9, 708	Nov. 3, 1917
1867	Orizaba	455.09		363.96	48, 547.57	48, 558.51	11, 298	May 28, 1918
1899	Pastoras	3, 795.77			2, 346.03	6, 142.40	May 6, 1918	
1919	Paysandu	4, 037.24			2, 43.56	4, 080.80		
7925	Plattaburg	154, 725.50		152.47	28, 063.33	183, 398.07		May 24, 1918
2026	Purlan	115.98			10, 402.33	10, 544.35		
2028	Santa Ana	470.43			978.02	978.02		
2029	Santa Cecilia	470.43			3, 984.36	4, 454.81		
2047	Santa Clara	7.50		1, 284.86		1, 284.86		
2030	Santa Elena	23.60		116.29		123.79		
2037	Santa Malla	1, 218.08		49.74		2, 716.56		
2039	Santa Rosa	613.15			2, 680.42	4, 655.10		
2125	Santa Teresa	4, 509.86		1, 527.47	3, 437.02	8, 657.43		Nov. 18, 1918
2128	Shoshone	28, 794.23		17.32	6, 297.25	18, 316.64		
2129	Sierra	28, 794.23		1.60	12, 794.33	34, 314.65	11, 298	Apr. 8, 1918
2180	Sol Navis	618.63		3, 168.51	5, 771.64	22, 181.21	9, 680	July 1, 1918
2157	South Bend	53.77			18, 218.47	3, 400.06		
2167	St. Paul	823.55			3, 346.31	6, 233.02		
2210	Tenadores	18.00		5.00	76.90	16.90	16, 275	Jan. 14, 1919
2246	Troy (ex-Minnesota)	16.55			9, 382.82	9, 382.82		Apr. 17, 1918
2368	Wilhelmina	7, 931.51		2, 187.36	9, 197.69	702.29	36, 905	Apr. 5, 1917
8015	Yale	1, 221, 133.20		7, 931.51	9, 860.94	11, 240.74		
	Total	565, 276.22		95, 272.76	1, 012, 982.23	8, 956.15		

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	
TRANSPORTS.											
3511	Charles										
1344	Etlen		\$14.00		\$14.00		\$8.16	\$8.16			
8507	General Alava		681.83	\$11,530.88	12,212.71	\$634.60	163.60	13,011.00	92		
8508	Hancock	\$45,897.28	2,964.59	14,972.58	63,834.45	* 784.83	1,216.49	64,266.11	92		
4448	Harrisburg			64.00	64.00			64.00			
8501	Henderson			57,381.03	160,655.27	9,497.98	11,621.26	181,674.51	92		
8502	Heywood	97,338.32	5,935.92		99.32			99.32			
1718	Manchuria		21.00		21.00			21.00			
1738	Matsushima		40.00		40.00			40.00			
1948	Northern Pacific			300.60	300.00			300.00			
1919	Plattsburg		215.55	152.00	367.55			367.55			
2028	Santa Clara		35.00		35.00			35.00			
2029	Santa Teresa						46.26	46.26			
2129	Sierra			364.40	364.40			364.40			
Total		143,235.60	10,007.21	84,764.89	268,007.70	9,347.84	12,983.77	260,300.31			

* Credit.

¹ All transports out of commission 92 days except otherwise shown.

SUPPLY SHIPS.

Mr. KELLEY. Now, the supply ships for 1916?

Admiral POTTER. For 1916, \$848,213.01. For 1921, \$2,103,099.90.

Mr. KELLEY. Are they the same ships?

Admiral POTTER. There is one new ship, added in 1916, the *Bridge*.

It is one additional ship.

Mr. KELLEY. It was in the list, but only a part of the year?

Admiral POTTER. Yes, sir.

Mr. REED. There was no charge. We had four actually in commission during 1916, and we had five in 1921, one of them only for a part of the year.

Mr. KELLEY. The *Bridge* is an additional ship?

Admiral POTTER. Yes, sir. She was built for a supply ship, the first one actually built by the Navy for that purpose.

Mr. KELLEY. Which one of these has been used with the destroyers?

Admiral POTTER. There has been no supply ship of that kind that has been confined to the destroyers. The ships run in a train, and when there are destroyers they are provided just the same as any others. None belongs to the destroyers.

Mr. KELLEY. How much did they cost the first quarter of 1922?

Admiral POTTER. The same ships cost \$347,014.77.

1916.

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total operating expenses.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.		
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Full commission.						Commission in reserve.		
SUPPLY SHIPS.													
779	Bridge.....	\$99,566.72	\$1,745.09	\$49,272.02	\$34,337.70	\$150,583.83	\$184,921.53	8,500	Building.....	12			
777	Celtic.....	92,625.79	3,697.15	48,042.13	41,226.70	144,365.07	185,591.77	6,750	May 25, 1908	12			
776	Culgoa.....	94,663.06	4,610.35	78,275.36	49,047.21	177,548.77	226,595.98	6,000	Dec. 3, 1908	12			
778	Glacier.....	87,812.07	4,211.69	59,544.63	99,535.34	161,568.39	251,503.73	8,325	July 5, 1908	12			
775	Supply.....							4,325		12			
	Total.....	374,067.64	14,264.28	235,134.14	224,146.95	624,066.06	848,513.01						
	Equipage.....						212,083.25						
	Total.....						1,060,596.26						

1921.

No.	Name of vessel.	Title C.				Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.	Total operating expenses.						
SUPPLY SHIPS.											
8510	Bridge.....	\$277,642.23	\$23,447.83	\$103,630.51	\$494,720.57	\$37,987.92	\$62,388.87	\$266,105.36	8,500	June 2, 1917	12
8561	Celtic.....	132,854.25	2,704.73	94,360.51	229,940.49	28,794.55	133,949.33	367,663.40	6,750	July 1, 1911	12
8552	Culgoa.....	179,265.95	9,913.55	163,721.88	372,901.38	20,260.32	198,427.75	591,585.45	6,000	do.	12
8553	Glacier.....	154,714.90	15,873.24	104,315.64	274,903.78	18,721.75	191,707.16	485,352.69	8,325	Feb. 13, 1912	12
8554	Supply.....	23,744.72	249.06	38.99	24,032.77	78.60	14,267.63	38,376.00	4,325	July 1, 1911	.....
	Total.....	768,212.05	52,198.41	576,106.53	1,396,506.99	105,852.17	600,740.74	2,108,096.90	.....	.....	.....

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including communications.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
SUPPLY SHIPS.											
8510	Bridge.....	\$59,674.65	\$840.37	\$35,645.16	\$96,160.18	\$5,672.75	\$1,637.28	\$103,470.21			.....
8551	Celtic.....	37,292.00	2,981.42	45,889.17	86,142.59	3,439.31	1,711.66	91,293.56			.....
8552	Chirco.....	42,545.47	1,202.96	20,658.02	64,406.45	6,754.29	113.54	71,274.28			.....
8553	Glacier.....	72,608.22		5,868.30	78,476.52	2,003.67	56.56	80,536.75			.....
8554	Supply.....						439.97	439.97			92
	Total.....	212,120.34	5,004.75	108,060.65	325,185.74	17,870.02	3,959.01	347,014.77			.....

¹ All supply ships in commission 92 days unless otherwise shown.

HOSPITAL SHIPS.

Mr. KELLEY. The next is hospital ships.

Admiral POTTER. There was only one hospital ship in commission in 1916. That was the *Solace*, and the total amount spent on her was \$265,515.41. In 1921 we had five hospital ships in commission for 12 months, at a total expenditure of \$2,511,536.80.

Mr. KELLEY. What was the amount expended for the *Solace* in 1921?

Admiral POTTER. \$525,466.12. The large amounts in that were for pay and stores issued.

Mr. KELLEY. What was the expenditure for three months of the present fiscal year?

Admiral POTTER. There were four ships in commission at a total cost of \$355,478.47.

Mr. KELLEY. I take it that the *Solace* is pretty well out of commission?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You may put in the record at this point the table covering the hospital ships for the three periods.

Admiral POTTER. I will do so.

47400

No.	Name of vessel.	Title C.				Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Total operating expenses.					Full commission.	Commission in reserve.
801	HOSPITAL SHIP.										
	Solace.....	\$102,543.68	\$8,390.75	\$47,015.33	\$157,949.76	\$107,565.65	\$285,515.41	5,700	Apr. 14, 1898	12	
	Equipage.....						66,378.85				
	Total.....						331,894.26				

1921.

No.	Name of vessel.	Title C.				Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.	Total operating expenses.						
1011	HOSPITAL SHIPS.										
8577	Adrian.....	\$108,775.11	\$8,237.69	\$115.11	\$115.11	\$3,702.58	\$1,341.03	\$1,456.14	330	Nov. 14, 1918	
8578	Comfort.....	408,779.33	19,707.53	41,550.54	158,572.34	76,142.97	123,360.16	237,635.41	10,102	Mar. 18, 1918	12
8578	(Relief) Hospital Ship No. 1.....	231,892.19	18,427.66	282,272.72	708,758.56	255,343.87	160,341.25	945,635.78	10,102	do do, 1920	12
8915	Relace.....			220,309.19	470,629.04	255,343.87	294,505.91	746,478.78	3,300	Dec. 28, 1920	12
8900	Sope.....			152,227.98	453,205.39	15,628.54	3,793.55	2,808.09	3,300	Aug. 31, 1919	12
2159	South Port.....	286,457.93	14,519.48	68.54	68.54	119.09	56,632.17	57,446.12	3,700	July 1, 1917	12
2114	Sea Gate.....			5.70	5.70		860.02	1,047.65			
	Total.....	1,083,904.56	60,892.34	696,558.78	1,791,355.68	351,247.00	368,934.12	2,511,536.80			

1922.
[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
	HOSPITAL SHIPS.										
8577	Comfort	\$9,620.66	\$1,617.31	\$7,736.65	\$19,004.62	\$1,398.75	\$170.01	\$20,573.38	36		56
8578	Mercy	90,664.87	24.68	41,103.37	131,792.92	2,395.12	383.87	134,571.91	92		
8576	(Relief) Hospital Ship No. 1	115,578.33	2,419.61	68,931.21	186,929.15	9,928.43	11,065.85	194,891.73	92		
8600	Solace	5,176.46			5,176.46	4.30	290.69	5,441.45	20		72
	Total	221,040.32	4,061.60	117,771.23	342,903.15	13,726.60	11,151.28	355,478.47			

¹ Credit.

FUEL SHIPS.

Mr. KELLEY. The next is fuel ships. What was the total expense for fuel ships in 1916?

Admiral POTTER. \$2,641,307.42.

Mr. KELLEY. And in 1921?

Admiral POTTER. In 1921, \$12,595,787.56. For the first three months of 1922 the expenditure was \$2,488,764.04.

Mr. KELLEY. At the same rate of expenditure the expense for the year would be almost \$10,000,000.

Admiral POTTER. Yes, sir.

Mr. KELLEY. Are certain ones of these fuel ships assigned to destroyers?

Admiral POTTER. No, sir; they are all held in the same position as general supply ships. They consort with the fleet or main force, and when destroyers are present they also supply them. Sometimes they send special missions to them.

Mr. KELLEY. If destroyers operate in separate squadrons, then, of course, a certain number of these fuel ships would go along with them?

Admiral POTTER. The method usually followed is for the fuel ship to make the best of its way to the port direct, and catch the destroyers as they come in.

Mr. KELLEY. Would you be in a position to give the percentage of use for destroyers that these ships are assigned to?

Admiral POTTER. No, sir; not offhand.

Mr. KELLEY. That is to say, of this \$10,000,000 for fuel ships, what percentage would be due to the destroyers?

Admiral POTTER. We could work out something that would show pretty closely the proportion, and we could give you a fair approximation of it.

Mr. KELLEY. Work out this proposition: Basing the number of fuel ships on the destroyers per hundred, how many fuel ships per hundred would be required for the destroyers?

Admiral POTTER. We had two oilers whose sole duty it was for a given time to supply oil to the east coast reserve destroyers, and there was one fuel oiler performing the same duty on the west coast.

Mr. KELLEY. You would be in the best position to give information as to the number of these ships that would be unnecessary for every 100 destroyers put out of commission?

Admiral POTTER. Yes, sir; we could figure that out upon the basis of delivering oil to the destroyers, or we could tell how many of those vessels would be necessary to make that delivery.

Mr. KELLEY. In other words, assuming that you have a Navy with 100 destroyers, you can state about what would be required in the way of fuel ships for those destroyers; how many for an additional 100 destroyers; how many for a further additional 100 destroyers, etc., so as to get at the number of fuel ships required under those varying conditions.

Admiral POTTER. We can supply that.

Mr. KELLEY. You may insert in the record at this point the table covering the fuel ships.

Admiral POTTER. We will do so.

OILERS REQUIRED TO MEET FUEL OIL NEEDS OF 100 DESTROYERS.

The following tabulation is submitted showing the number of oilers required to meet the fuel-oil needs of 100 destroyers:

Days per month (24 hours) spent in cruising.....	0	1	2	3	4	5	6	10
Days per month spent in port..	30	29	28	27	26	25	24	20
ACTIVE.								
Number of barrels consumed per month by 1 destroyer in active commission.....	870	1,068	1,266	1,464	1,662	1,860	2,058	2,880
Number of barrels consumed per month by 100 destroyers in active commission.....	87,000	106,800	126,600	146,400	166,200	186,000	205,800	288,000
Number of oilers required if destroyers are in active com- mission on following stations:								
Atlantic coast.....	2	2	3	3	4	4	4	6
European stations.....	6	8	9	11	12	14	15	20
Pacific coast.....	2	3	3	4	4	5	5	7
Asiatic stations.....	7	9	10	12	13	15	16	21
RESERVE.								
Number of oilers required if destroyers are kept in reserve on following stations:								
Atlantic coast.....	2	2	3	3	4	4	4	6
Pacific coast.....	1	2	2	2	2	2	2	3

NOTE.—The above data is predicated upon the assumption that destroyers will operate under conditions similar to those that have obtained during the past year. An increased number of oilers will be required in the event that longer cruises are undertaken, as this would result in vessels operating at a greater distance from source of oil supply. The number of oilers required for a given number of destroyers varies directly with the amount of cruising and the distance of the vessels from the source of oil supply.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers, including commuted rations.	Stores issued, including provisions and medical stores.						Full commission.	Commission in reserve.
FUEL SHIPS.											
611	Aberdeen.....	\$25,901.05	\$9,829.31	\$36,283.00	\$62,013.36	\$18,331.34	\$80,344.70	6,680	May 20, 1898	12	.....
612	Albatross.....	29,149.85	13,021.67	33,186.68	75,358.20	9,158.99	84,517.19	9,250	May 21, 1898	12	.....
613	Alex.....	25,640.85	5,403.90	26,644.62	57,689.37	46,827.47	104,516.84	6,160	May 21, 1898	12	.....
614	Brutus.....	22,466.33	4,194.08	21,046.30	47,708.71	64,949.68	112,658.39	6,550	May 27, 1898	12	.....
615	Cesar.....	26,305.71	9,135.99	17,238.24	52,679.94	24,007.61	76,687.55	5,940	May 13, 1898	12	.....
616	Cuyana.....	50,830.14	5,555.74	46,741.09	103,128.97	46,723.26	149,850.23	14,500	Building	.....	.....
617	Cyclops.....	40,437.54	6,701.77	43,414.29	90,553.60	29,815.06	120,368.66	19,360	Nov. 7, 1910	12	.....
618	Hyacinth.....	45,460.00	8,657.58	58,311.64	112,420.22	34,165.06	146,585.28	19,250	Oct. 22, 1909	12	.....
619	Jupiter.....	108,876.12	3,087.56	72,041.75	184,005.43	40,711.01	224,716.44	19,360	June 26, 1913	12	.....
620	Justus.....	11,751.44	1,905.75	25,359.91	39,017.10	32,296.19	42,286.29	.....	Apr. 7, 1913	12	.....
621	Kanawha.....	39,246.68	7,580.55	73,821.15	120,648.38	22,685.96	143,334.34	14,500	Apr. 27, 1898	7	.....
622	Mars.....	42,120.48	19,157.27	49,510.75	110,788.24	45,002.41	155,790.65	11,250	June 5, 1915	12	.....
623	Maroon.....	25,076.15	6,922.70	5,310.75	6,003.45	2,330.78	8,334.23	14,500	Aug. 26, 1909	12	.....
624	Nashua.....	3,876.26	46,988.96	75,944.37	127,944.37	11,798.97	87,743.34	5,140	Building	.....	.....
625	Nathan.....	105,536.62	3,876.26	46,988.96	75,944.37	11,798.97	87,743.34	5,140	Sept. 20, 1911	12	.....
626	Neptune.....	56,337.20	5,126.14	46,900.27	157,563.03	33,313.85	190,876.88	19,480	Sept. 10, 1913	12	.....
627	Nereus.....	29,804.82	27,173.23	59,998.42	143,398.85	3,303.98	146,702.83	19,080	June 8, 1898	12	.....
628	Nero.....	41,588.68	4,402.08	36,236.17	70,532.53	32,238.54	102,771.07	6,100	June 8, 1898	12	.....
629	Orion.....	50,261.72	4,928.16	67,816.76	114,331.60	45,005.57	159,337.17	19,250	July 29, 1912	12	.....
630	Pegasus.....	26,535.27	61,811.89	47,541.55	159,616.16	13,557.14	173,173.30	19,080	July 9, 1913	12	.....
631	Saturn.....	10,461.49	11,542.83	12,140.04	33,747.36	83,066.64	116,813.94	4,840	Apr. 11, 1898	12	.....
632	Stirling.....	37,108.08	5,457.91	35,890.73	78,456.72	51,901.52	130,358.24	5,660	Apr. 16, 1898	5	.....
633	Vulcan.....	850,895.68	22,398.38	896,522.35	1,962,806.41	678,501.01	2,641,307.42	11,250	Oct. 2, 1902	12	.....
Total Equipage.....							660,328.96				
Grand total.....							3,301,634.28				

1921.

No.	Name of vessel.	Title C.			Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.									
FUEL SHIPS.												
8451	Abarenda.	\$101,748.88	\$8,820.11	\$57,595.96	\$168,164.95	\$16,091.95	\$36,329.52	\$220,556.42	6,680	July 1, 1911	12	
8452	Ajax.	72,270.83	2,133.45	114,585.65	188,989.93	8,002.36	203,077.21	400,669.50	9,250	July 3, 1907	12	
8450	Alameda.	109,697.44	8,467.19	117,996.57	236,131.20	66,466.58	260,330.80	328,928.58	6,160	Oct. 1, 1912	12	
8453	Arethusa.	105,233.31	15,421.61	128,779.13	249,434.05	12,208.04	39,825.04	301,527.13	14,500	Oct. 1, 1912	12	
1097	Barnes, Robert L.	36,149.06	6,149.43	43,567.77	85,866.26	8,076.02	51,702.57	145,044.85	5,380	Oct. 1, 1919	12	
8416	Brazos.	135,360.43	6,297.80	277,552.61	419,200.90	13,083.87	81,442.15	513,726.92	14,800	Oct. 1, 1919	12	
8454	Brutus.	186,540.07	9,386.95	107,423.11	303,350.13	13,680.59	61,635.98	378,666.70	6,550	Mar. 27, 1898	12	
8455	Caesar.	49,477.40	303.16	21,171.80	70,952.36	11,638.92	115,362.82	197,954.10	5,940	May 13, 1898	12	
8415	Cuyama.	152,212.07	8,209.97	795,718.92	956,200.96	21,475.47	83,744.57	1,061,421.00	14,500	Apr. 2, 1917	12	
8407	Heclor.						10.72	10.72	11,250	Oct. 22, 1909	12	
4313	Jason.	191,036.33	11,121.23	222,072.56	424,230.12	43,828.42	71,737.89	539,796.43	10,250	June 26, 1913	12	
4851	Kanawha.	164,682.84	17,226.43	177,269.05	359,178.32	34,292.72	148,578.96	542,340.00	14,500	June 5, 1915	12	
8403	Kaweah.			111.79	111.79	15.00	28.24	155.03				
8403	Langley (ex-Jupiter).		39.10	440.91	480.01	12,839.08	949,238.05	937,328.98	19,360	Apr. 7, 1913		
4852	Laramie.						45,009.25	407,055.62	11,250	Aug. 26, 1909	12	
8406	Mars.	165,046.26	13,130.10	168,672.50	346,848.86	11,537.51	48,669.25	473,153.77	14,500	Oct. 22, 1916	12	
8453	Mattole.						155,067.42	251,502.47	5,039	—, 1898	12	
8414	Maunee.	169,638.69	4,574.95	124,180.09	298,402.73	19,683.62	49,009.23	366,887.41	14,500	Oct. 22, 1916	12	
8456	Naushon.	131,078.53	8,726.10	51,627.31	191,431.94	11,031.30	17,968.00	219,400.39	6,100	Sept. 20, 1911	12	
8417	Fuel ship No. 17 (ex-Natchez).	106,768.80	7,204.57	133,828.28	247,801.65	303,127.75	17,968.00	598,887.41	19,480	Sept. 10, 1913	12	
8408	Neptune.	232,753.65	18,666.80	180,455.92	431,965.37	35,826.78	397,728.83	865,496.98	19,080	Sept. 10, 1913	12	
8410	Nereus.	172,442.00	8,060.14	64,860.22	245,401.36	15,202.02	265,403.01	516,096.39	19,080	June 8, 1898	12	
8417	Nero.	119,969.12	3,491.14	61,450.61	184,910.87	15,865.90	244,854.37	361,000	6,100	June 8, 1898	12	
8411	Orion.	189,873.78	8,255.31	175,448.28	373,577.37	17,282.85	183,549.19	574,408.41	19,250	Sept. 20, 1912	12	
8454	Patoka.	116,447.88	5,676.06	183,018.50	305,142.44	66,368.43	90,228.83	421,738.27	16,000	Oct. 13, 1919	12	
8409	Proetus.	177,664.64	7,403.89	207,077.71	392,736.21	46,348.26	102,774.94	596,876.41	19,080	July 9, 1913	12	
8455	Ranapo.	96,896.00	7,813.39	163,173.74	267,883.13	12,031.45	41,743.03	321,677.61	16,800	Nov. 15, 1919		
8456	Rapidan.					8.44	8.44	8.44				
8457	Salinas.			\$, 166.79	\$, 166.79			\$, 166.79				
2022	Satolo.	104,117.75	11,656.60	238,821.00	354,595.35	15,252.86	35,755.23	405,003.44	16,800	Feb. 19, 1920		
8458	Surah Thompson.	66,954.38	4,951.29	112,107.23	184,012.90	12,575.28	121,970.75	318,568.03	5,830	Sept. 16, 1918		
8459	Saturn.	146,537.40	10,738.43	94,175.30	251,451.13	18,487.50	67,041.51	336,980.14	4,840	Apr. 11, 1898	12	
8460	Sterling.						7,116.40	14,132.26	5,060	Apr. 16, 1898	12	
8461	Stirling.	101,022.75	0.415.87	165,522.85	273,961.57	37,076.96	23,904.94	336,943.47	5,800	Nov. 15, 1919		

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
FUEL SHIPS.											
8451	Albatross	\$25, 165. 71		\$61, 664. 33	\$86, 830. 04	\$3, 473. 06	\$11, 072. 33	\$101, 375. 43		92	
8452	Ajax			6, 067. 63	33, 372. 58	7, 064. 17	30, 451. 01	70, 887. 76			
1053	Alamella	27, 304. 95	\$2, 013. 19	19, 995. 93	48, 806. 24	2, 383. 90	126. 71	51, 319. 85			
8453	Arcthiusa	26, 800. 12	11, 935. 43	41, 478. 68	54, 010. 08	2, 145. 71	61. 59	56, 217. 38			
1097	Barnes, Robert L.	35, 086. 11	81. 00	63, 801. 40	98, 988. 51	526. 75	1, 541. 51	101, 036. 77			
8410	Brutus		92. 00	589. 06	671. 06		2, 3. 02	668. 04	48	44	
8454	Cesar	35, 010. 82	892. 97	14, 772. 10	50, 775. 89	4, 638. 87	5, 281. 67	60, 696. 43			
8455	Cuyana	32, 648. 71	1, 131. 00	11, 824. 20	45, 603. 91	1, 523. 46	1, 377. 90	48, 505. 37			
8412	Jason	35, 765. 10	1, 471. 33	21, 153. 74	58, 390. 17	4, 255. 01	34, 958. 44	93, 773. 62			
8413	Kanawha	28, 160. 23	1, 233. 76	81, 738. 26	111, 138. 25	1, 898. 96	322. 73	113, 359. 94			
8403	Langley (ex-Jupiter)					13. 95	172, 345. 66	172, 361. 61			
8406	Mars	41, 843. 80	382. 78	99, 306. 01	141, 532. 59	4, 190. 09	24, 759. 43	170, 482. 11			
8414	Maumee	37, 353. 41	84. 14	13, 276. 40	50, 713. 95	12, 173. 76	35, 998. 59	98, 986. 30			
8456	Naushan	35, 111. 99	1, 535. 76	14, 010. 24	50, 657. 99	1, 081. 93	52, 350. 01	52, 350. 01			
8457	Neches	38, 178. 11	1, 874. 92	95, 131. 63	135, 184. 66	3, 142. 20	2, 099. 42	140, 426. 28			
8408	Neptune	50, 798. 78	2, 420. 57	71, 230. 88	124, 450. 23	12, 981. 09	1, 835. 00	139, 266. 32			
8409	Nereus	35, 062. 66	1, 628. 56	131, 669. 44	168, 360. 66	12, 085. 43	2, 116. 42	182, 562. 51	74	18	
8410	Nero	14, 842. 61		4, 162. 79	19, 005. 40	1, 218. 24	500. 74	20, 724. 38			
8411	Orion	41, 541. 55	922. 93	35, 592. 66	78, 057. 14	4, 689. 21	8, 547. 43	91, 263. 78			
1884	Patoka	33, 987. 29	6, 741. 67	23, 786. 75	64, 527. 71	1, 587. 05	1, 519. 80	64, 460. 46			
8409	Proteus	40, 734. 50	570. 90	51, 160. 11	92, 465. 51	6, 283. 99	3, 315. 68	102, 065. 18			
1968	Ramapo	40, 736. 35	815. 29	49, 394. 01	90, 945. 65	8, 426. 05	30, 495. 94	129, 870. 64			
2022	Sapelo	30, 012. 22	1, 719. 73	53, 412. 20	85, 144. 15	4, 494. 60	783. 91	90, 412. 66			
8438	Sara Thompson	14, 487. 99	503. 69	3, 594. 62	18, 586. 30	2, 060. 88	1, 063. 28	21, 740. 46			
8459	Saturn	33, 295. 02	119. 79	15, 671. 55	49, 086. 36	2, 289. 29	3, 671. 01	55, 046. 66			
8460	Sterling			11. 33							
2222	Trinity	34, 143. 46	950. 66	49, 046. 16	84, 740. 28	1, 741. 29	540. 83	87, 022. 40			
4860	Tippecanoe		81. 60		81. 60			81. 60		72	
8405	Vulcan	6, 474. 15		17, 800. 39	24, 274. 54	140, 339. 02	6, 109. 68	30, 884. 22	20	55	
8418	Pecos		72. 23		72. 23		1, 177. 00	141, 588. 25	37	92	
8405	Cyclops					98. 60		98. 60			
Total		786, 481. 07	27, 969. 21	1, 052, 005. 13	1, 866, 445. 41	239, 797. 46	382, 621. 17	2, 488, 764. 04			

: Credit.

¹ All fuel ships in commission 92 days unless otherwise shown.

MINE SWEEPERS.

Mr. KELLEY. We now come to the mine sweepers: What was the total number of mine sweepers in commission in 1916?

Mr. REED. We did not have that class of ships in 1916.

Mr. KELLEY. What was the amount expended on account of mine sweepers in 1921?

Admiral POTTER. \$7,451,349.88.

Mr. KELLEY. And now much for the first three months of the fiscal year?

Admiral POTTER. \$1,481,264.70. If we went on at that rate the expenditure would be \$5,900,000, but of course, it will not be on at that rate.

Mr. KELLEY. I notice in this table on pages 122 and 123 of the 1921 reports that all of these mine sweepers were put into commission in 1917, 1918, and 1919. They were evidently gathered during the war. Where did you get these boats?

Admiral POTTER. We had some built. The best of them were built by the Staten Island Shipbuilding Co., which was a general shipyard, but which built a lot of mine sweepers for us. The others are tugs, etc., as I remember, and small yachts. Most of them were converted vessels.

Mr. KELLEY. This is a sort of nondescript class of ships.

Admiral POTTER. Yes, sir; consisting of yachts, tugs, etc. About 20 of them were specially built.

Mr. KELLEY. How many of these boats are there in this list for 1921?

Mr. REED. There were 44 in commission in 1921, and there were considerably more than that now.

Mr. KELLEY. There must be 100 here.

Mr. REED. Yes, sir; but on the ones other than the 44 in commission the charges will only total a very few thousand dollars, and undoubtedly they represent delayed charges and some light repairs made on them while they were laid up at the yards.

Mr. KELLEY. How many are on the list?

Admiral POTTER. The total number for 1922 is 65. Some of them have very small charges.

Mr. KELLEY. We did not have any of those ships in the Navy prior to the war at all?

Admiral POTTER. I find one here which seems to have gone into commission in 1915. In general, that statement is correct.

Mr. KELLEY. Do they carry any guns?

Admiral POTTER. Some of them carry two machine guns.

Mr. KELLEY. If we went on at the same rate that we have gone for the first three months, we would spend \$5,000,000 a year on account of these vessels?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Will you put into the record, or would you be a proper one to put into the record, a little analysis of the kind of boats these are, giving their size and tonnage?

Admiral POTTER. I think that would be more properly an options matter.

r. OLIVER. We had very few of these boats prior to 1916?

r. KELLEY. We did not have any at all.

Admiral POTTER. They began in 1917.

r. KELLEY. Do you know of your own knowledge how these boats used in peace time?

Admiral POTTER. No, sir.

r. KELLEY. You may insert your table at this point.

Admiral POTTER. I will do so.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical rations.	Stores issued, including provisions and medical stores.							
MINE SWEEPERS.											
7651	Anderton, Raymond J.			\$1,346.80	\$1,346.80						
7619	Avocat.	\$47,723.00	\$305.08	25,611.17	73,639.25	\$3,314.44	\$15,259.21	\$1,346.80	950	Aug. 18, 1917	12
7538	Auk.	24,887.27	286.96	19,407.73	44,581.96	4,030.97	4,701.07	92,212.90	950	Sept. 17, 1918	12
7653	Beddows, Joseph F.			2.06	2.06			56.47	950	Jan. 31, 1919	12
7636	Bittern.	44,258.58	1,688.17	37,536.73	83,483.48	6,230.41	25,046.42	114,760.31	950	May 18, 1917	12
7520	Bobolink.	84,425.20	175.68	65,166.32	147,767.20	6,151.74	108,203.58	262,122.52	950	May 28, 1919	12
7654	Bouker, No. 2.			7,256.27	7,256.27	6,683.00	18,852.97	26,762.24	950	Jan. 28, 1918	12
7524	Brant.	50,733.18	398.58	43,709.03	94,840.79	2,834.65	22,602.78	120,278.22	950	Aug. 17, 1918	12
8719	Cahill, Winfield S.			1,521.46	1,521.46			1,521.46		Sept. 5, 1918	12
7506	Cardinal.	42,007.88	3,192.20	30,549.85	75,750.02	10,263.04	17,892.20	103,905.26	950	Aug. 10, 1917	12
7655	Carolla IV.			1,030.01	1,030.01			1,030.01		Aug. 23, 1918	12
7657	Challenge.	4,824.48	139.22	11,351.46	16,315.16	3,139.03	21,123.38	40,577.57	950	July 17, 1917	12
7539	Chewink.	66,334.74	926.03	58,612.07	125,872.84	6,057.50	31,796.61	163,728.95	950	Oct. 4, 1918	12
1218	Clark, J. Alvah.			105.00	105.00			105.00		Apr. 9, 1919	12
7675	Clark, James H.			101.81	101.81			101.81		Oct. 24, 1918	12
1225	Comber.			81.35	81.35	2,759.44	50.44	2,840.79	950	Oct. 26, 1917	12
1231	Coney, Edgar F.			118.08	118.08			118.08			
7660	Conestoga.	34,607.96	1,222.74	67,965.52	103,426.22	20,282.23	40,468.14	164,174.69	950	Nov. 10, 1917	12
7540	Cormorant.	42,813.10	575.62	41,505.79	84,894.51	5,540.77	29,248.29	119,692.57	950	May 15, 1919	12
8729	Courtney, Warren J.			1,683.50	1,683.50			1,683.50		Aug. 10, 1917	12
1243	Crawford, Charles F.			454.99	454.99			454.99		Sept. 2, 1917	12
1245	Crest.			19.25	19.25			19.25		May 8, 1917	12
7508	Curlow.	42,984.36	265.64	24,382.67	67,632.67	1,700.26	26,620.93	95,043.86	950	Feb. 7, 1919	12
7663	Douglass, Otis W.			1,346.80	1,346.80			1,346.80		Aug. 10, 1917	12
7664	Dradnaught.	8,567.61	2,301.14	12,855.82	23,644.57	1,321.71	22,835.85	47,822.13		Jan. 31, 1918	12
7665	Easthampton.			2,872.58	2,872.58			2,872.58		May 8, 1917	12
7666	Edwards, Wilbert A.									Aug. 10, 1917	12
7517	Elder.	49,930.33	539.03	28,268.94	78,738.30	6,956.84	25,353.40	111,048.54	950	Jan. 23, 1919	12
7528	Falcon.	81,653.36	1,378.14	97,903.93	180,935.43	32,824.00	42,140.81	255,900.24	950	Nov. 12, 1918	12
7667	Favorite.	13,680.38	148.88	26,914.62	40,743.48	3,693.64	5,281.19	44,965.31		Sept. 10, 1918	12
9509	Finch.	41,392.06	117.07	32,621.63	74,031.66	5,483.13	22,654.06	102,168.85	950	Feb. 12, 1919	12
7632	Fleming.	23,618.71	45.00	22,378.24	46,041.95	774.73	6,005.38	51,872.00	950	June 1, 1919	12
1365	Foam.		6.73	8.94	15.67		56.00	72.27	450		

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and medical stores.	Stores issued, including provisions and medical stores.							
MINE SWEEPERS—continued.											
2161	Spartan.....			\$630.24	\$630.24	\$159.83	\$58.58	\$58.58	500	Sept. 22, 1918	.....
2163	Spray.....			90.85	100.85		1,635.51	2,425.58	500	June 1, 1918	.....
2171	Starling.....		\$10.00					100.85		Aug. 19, 1918	.....
2165	St. Co., No. 2.....		6,143.81		6,143.81			6,143.81		Sept. 27, 1918	.....
7096	Struven, Peter C.....			56.52	56.52		179.29	235.81		May 18, 1917	.....
2181	Surf.....			56.25	56.25			56.25		May 8, 1917	.....
7097	Sussex.....		284.73		284.73	2,000.00	1,679.36	3,964.09			.....
7004	Swallow.....	\$57,483.66	7,125.20	45,816.73	110,425.59	2,896.88	46,817.23	160,099.70	950	Oct. 8, 1918	12
7534	Swan.....	56,730.80	100,666.20	26,917.99	184,214.99	10,497.59	8,620.36	203,332.94	950	Jan. 31, 1919	.....
7537	Sanderling.....	64,002.58	1,495.32	39,227.24	104,725.14	6,977.06	20,929.37	132,631.57	950	Aug. 26, 1918	12
7551	Sandpiper.....	78,477.85	1,618.81	50,513.03	130,609.69	8,924.12	32,488.97	172,022.78	950	Oct. 9, 1919	.....
2043	Sappho.....						616.00	616.00		Aug. 20, 1917	.....
7530	Sea Gull.....	65,898.18	246.20	44,481.86	110,626.24	2,896.83	13,689.35	127,172.42	950	Mar. 6, 1919	.....
7095	Sea Rover.....	6,227.34	144.60	2,481.68	8,853.52	256.37	13,782.50	9,892.45	600	Jan. 31, 1918	.....
7505	Tanager.....	61,510.58	242.56	42,337.29	104,090.43	3,384.26	41,572.84	149,047.53	950	June 28, 1918	12
7318	Thrush.....	77,610.04	282.15	53,203.78	131,097.97	4,709.94	15,659.22	151,467.13	950	Aug. 26, 1919	.....
7523	Teal.....	49,098.24	547.03	25,128.32	74,773.59	5,662.78	46,628.87	125,065.24	950	Aug. 20, 1918	12
7313	Turkey.....	61,381.27	942.00	64,830.24	126,653.51	7,675.22	48,042.09	182,370.82	950	Dec. 13, 1918	12
7331	Tern.....	57,609.04	2,621.02	40,887.47	110,117.53	919.89	4,709.67	115,897.09	950	May 17, 1919	.....
7068	Undaunted.....	25,909.33	136.81	21,630.91	47,677.05	4,434.96	28,740.48	80,852.49	450	Feb. 5, 1918	12
7700	Victorine.....			1,706.02	1,706.02	105.76	2,502.39	4,374.17		Oct. 30, 1917	.....
7552	Vireo.....	74,086.10	923.02	48,677.34	123,686.46	4,590.58	37,604.90	166,151.94	950	Oct. 16, 1919	.....
7553	Warbler.....	11,492.66	1,860.42	27,490.33	39,843.39	7,541.57	17,776.49	55,661.45	950	Dec. 22, 1919	.....
7535	Whippoorwill.....	69,367.99	2,367.04	64,968.94	126,733.97	2,286.78	124,032.22	170,477.02	950	Apr. 1, 1919	12
7522	Widgeon.....	41,088.20	156.16	11,332.61	53,576.97	2,286.43	124,032.22	170,477.02	950	July 27, 1918	12
7554	Willow.....	17,227.22		11,571.91	28,799.13	4,763.68	1,253.43	25,865.02	950	Feb. 10, 1919	.....
7514	Woodcock.....	67,469.55		48,801.76	116,331.31	9,086.41	20,384.00	151,801.72	950		12
	Total.....	2,838,840.09	182,187.15	2,366,999.32	5,388,035.56	338,520.95	1,724,763.47	7,451,340.98			.....

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	
MINE SWEEPERS.											
7519	Avocet.....	\$17,085.77	\$158.80	\$13,821.29	\$31,055.86	\$2,047.95	\$5,602.89	\$38,716.70			
7538	Auk.....	1,337.00		1,527.39	2,864.39	1.35	16,090.27	18,956.01			* 92
7536	Bittern.....	4,275.85	419.32	9,118.75	13,813.92	876.13	74,339	14,764.44			
7520	Bobolink.....	14,788.52		18,534.96	33,324.48	241.55	797.61	34,363.64			
7554	Boat No. 2.....			12.00	12.00		369.71	381.71			
7524	Brant.....	11,802.06	310.60	9,424.08	21,536.72	18.37	1,263.47	22,818.56			
7506	Cardinal.....	13,422.54	324.32	6,295.33	20,042.19	16.07		20,058.26			
7557	Challenge.....	9,240.77	72.70	6,379.09	15,692.56	478.24	4,212.40	20,383.20			
7539	Chawink.....	14,392.31		20,900.23	35,292.54		166.80	35,593.53			
7560	Conestoga.....		37.00	4,702.10	4,739.10	* 690.32		4,048.78			92
7540	Cormorant.....	15,462.62	477.70	11,301.45	27,241.77	1,847.44	382.81	29,472.02			
7508	Curlew.....	8,536.99		5,064.46	13,601.45	1,443.47	16,937.61	30,982.53			* 92
7664	Dreadnaught.....		132.26	1,884.99	2,117.25	75.37	771.08	2,963.70			
7665	Easthampton.....	11,044.95	233.18	12,378.99	23,657.12	963.62	180.41	24,801.15			* 92
7517	Elder.....	32,387.92	351.43	10,209.33	42,948.68	152.34	88.09	43,186.11			
7667	Favorite.....						29.60	29.60			
7509	Finch.....	19,042.54	14.00	14,606.57	33,663.11	6,186.99	4,150.28	44,003.38			
7532	Flamingo.....			8,922.36	8,922.36	1.35	1,606.75	2,530.46			
7541	Gannet.....	14,236.78	580.05	8,639.32	23,406.15	132.52	1.11	23,542.78			
8738	Genesee.....	12,317.80	6,726.32	2,995.42	22,059.54	73.53	850.86	22,963.93			
7543	Grebe.....	14,393.43	115.48	8,161.23	22,670.14	261.46	304.61	23,236.21			
7510	Heron.....	16,410.00	106.70	16,115.72	32,632.42	1,007.19	4,714.23	38,353.84			
7674	Hinton, John B.....						31.51	31.51			92
7525	Kingsfisher.....	13,993.16	315.27	13,682.21	28,240.64	778.37	522.69	29,541.70			
7501	Lapwing.....	14,447.29	201.26	12,406.06	27,055.21	757.82	14,865.04	42,678.07			
7521	Lark.....	13,550.18		22,780.40	36,330.58	1,648.47	86.87	38,096.92			
7679	Lykens.....		285.40	9,406.97	9,692.37	241.92	163.53	10,097.82			
7544	Mallard.....	14,067.43		26,866.57	40,964.00	760.26	111.61	41,835.87			
7559	Mendota (ex-Concord).....			5,472.75	5,472.75	77.76	1,431.70	6,982.21			92
7507	Oriole.....	14,044.42	232.50	12,593.39	26,870.31	271.36	276.28	27,417.95			
7529	Osprey.....			375.90	375.90		23,290.59	23,676.49			
7502	Owl.....	14,159.06	223.00	9,258.60	23,640.66	1,358.01	5,804.50	30,803.17			
* All mine sweepers in full commission 92 days except as otherwise noted.											
* Reserved.											
* Credit.											
* Reduced.											

¹ Reduced.² Credit.³ Reserved.⁴ All mine sweepers in full commission 92 days except as otherwise noted.

1922—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equiptage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complement in reserve or ordinary.
MINE SWEEPERS—continued.										
7545	Ortolan.....	\$8,572.59	\$83.85	\$6,511.72	\$15,168.16	\$1,918.11	\$4,793.60	\$17,086.27		
7546	Partridge.....	13,237.75	260.24	10,108.90	24,608.89	699.42	649.80	30,099.91		
7547	Pelican.....	11,287.96	101.00	6,182.11	17,570.97	36.96		18,257.82		92
7548	Peacock.....						243.00	243.00		
7549	Panther.....	16,183.25	7333	13,143.49	29,826.74	600.86		30,333.02		
7550	Pendowest.....						5,520.56	5,520.56		
7551	Pigeon.....	10,096.20	7547	7,879.99	18,870.19	297.02	1,472.40	20,046.21		92
7552	Quail.....	14,710.28		32,520.76	141.75			33,103.72		
7553	Rail.....	15,486.37		19,490.46	34,976.83	238.32	425.50	35,640.65		
7554	Redwing.....	14,108.75	154.20	13,111.79	27,374.74	7,652.30	6,526.09	41,553.13		
7555	Robin.....	15,135.77		15,538.71	30,674.48	329.27	5,029.67	36,033.42		
7556	Ross, Sadie.....						8.00	8.00		92
7557	Shanadoah (ex-Hackett, F. V.)			34.40	34.40		8,262.81	8,262.81		92
7558	Spray.....						16.34	16.34		92
7559	Swallow.....	9,848.05	4,228.12	7,771.43	21,847.60	476.02	21,168.03	43,091.65		
7560	Swallow.....	14,895.26		5,942.28	20,837.54	330.53	6,236.66	27,064.73		
7561	Sandpiper.....	9,095.92	906.15	4,690.53	10,591.60	200.37	2,836.86	13,428.46		92
7562	Sandpiper.....	17,822.70	81.00	12,728.24	30,632.03	508.31	69.55	31,240.49		
7563	Scaup.....	13,626.49		13,601.30	27,317.79	45.97	129.40	27,447.29		
7564	Sea Rover.....			28.59	28.59		28.36	28.36		92
7565	Tanager.....	14,334.12	187.65	9,170.68	23,692.45	611.95	9,495.26	33,694.68		
7566	Thrush.....	14,755.30		3,875.45	18,630.75	364.45		19,310.68		
7567	Towl.....	15,613.36		18,712.60	34,325.96	60.46	1,163.88	35,550.30		
7568	Turkey.....	10,298.66	83.26	8,660.25	19,042.17	1,347.88	1,899.90	20,790.96		
7569	Tern.....	14,643.43	316.85	9,082.69	24,042.07	836.54	10,338.58	34,380.19		
7570	Undaunted.....	6,240.36		10,186.70	16,527.06	1,110.81	328.43	17,976.30		
7571	Vireo.....	14,704.07	78	21,636.33	36,402.08	235.67	1,106.95	37,734.70		
7572	Warbler.....			6.60	6.60			6.60		92
7573	Whippoorwill.....	11,133.50		6,800.82	17,934.32	13.55	776.04	18,724.61		
7574	Woodcock.....	25,483.47	59.00	4,264.26	29,848.73	2,436.88	22,000.05	55,137.66		
7575	Woodcock.....	13,345.71		20,261.40	33,607.11	1,107.08	19.37	36,768.53		92

VESSELS ON SPECIAL DUTY.

Mr. KELLEY. The next is converted yachts and patrol vessels.

Admiral POTTER. In 1915 we had a total of 16 vessels. Some of them were in commission and some out. Against them we had charges in 1916 amounting to \$590,332.79.

Mr. KELLEY. What did the converted yachts cost us in 1921?

Admiral POTTER. The total charges were \$3,614,995.40.

Mr. KELLEY. And for the first three months of this year?

Admiral POTTER. \$978,068.63.

Mr. KELLEY. Considering the lower cost, we are probably using yachts more generously than last year, are we not?

Mr. OLIVER. Why not let him answer as to 1921 and 1922 expenditures?

Mr. KELLEY. That is what he is doing now.

Admiral POTTER. If the expense continued at that rate, it would be \$3,900,000 for the entire year.

Mr. KELLEY. You may insert at this point the table covering 1916, 1921, and 1922, and the first three months of 1922.

Admiral POTTER. Yes, sir.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
VESSELS ON SPECIAL DUTY.											
829	Alleen.....		\$397.00	\$107.72	\$704.72	\$95.76	\$800.48	192	May 14, 1898		
834	Dorothea.....	\$121.00	1,254.32	2,870.09	4,246.01	4,946.23	9,192.24	594	June 1, 1898		
833	Eagle.....	47,717.98	1,192.55	35,475.75	84,386.28	14,745.77	99,132.05	434	Mar. 26, 1898	12	
828	Elfrida.....		363.80	3,623.38	84,987.18	230.85	1,218.03	164	June 30, 1898		
837	Gloucester.....		991.80	3,218.22	4,210.02	5,588.27	9,798.29	786	May 20, 1899		
832	Hawk.....		942.00	3,890.79	1,832.79	708.83	2,541.62	375	Apr. 5, 1898		
825	Huntress.....		941.44	505.84	1,447.28	7,451.37	8,898.65	82	July 1, 1898		
840	Mayflower.....	123,286.83	6,275.05	31,595.20	161,157.08	19,816.30	180,973.38	2,690	Apr. 1, 1898	12	
826	Onaida.....					3,862.64	3,862.64	150	Apr. 30, 1898	4	
836	Scorpion.....	47,689.81	1,817.20	45,141.58	94,648.59	146.17	94,794.76	775	Apr. 11, 1898	12	
931	Stranger.....		544.20	32.95	577.15	955.83	1,532.98	369	June 30, 1898		
827	Sylvia.....	60,449.93	7,533.56	6,647.89	74,631.35	3,430.26	78,061.61	152	Aug. 18, 1898	12	
830	Sylvia.....		1,272.60	946.91	2,219.51	3,659.07	5,878.58	302	June 29, 1898		
838	Vixen.....		908.40	716.48	1,624.88	319.49	1,944.37	806	Apr. 11, 1898		
835	Wasp.....		603.00	1,522.56	2,125.56	4,350.22	6,475.83	630	.....do.....		
839	Yankton.....	47,136.87	313.80	20,818.15	68,268.83	16,953.45	85,227.28	975	May 16, 1898	12	
	Total.....	326,402.42	25,550.72	151,114.09	503,067.23	87,265.56	590,332.79				
	Equipage.....						147,553.20				
	Total.....						737,915.99				

No.	Name of vessel.	Accrued pay.	Miscellaneous expense including commuted rations.	Stores issued including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
VESSELS ON SPECIAL DUTY.											
5702	Actus.....			\$15.81	\$15.81		\$7,710.05	\$7,710.05		Apr. 18, 1917	
5703	Adelant.....			5,949.19	5,949.19	\$150.20	476.01	6,118.39			
5704	Admiral.....			18.20	18.20		98.81	116.71			
5705	Admiral.....						11.38	49,921.40		July 19, 1917	
5706	Advance.....			5,881.51	5,881.51	1,673.98	42,366.91	49,921.40		July 27, 1918	
8601	Albion.....			2.70	2.70	3.19		5.89	192	Apr. 18, 1918	
1017	Albion.....			86.45	86.45			86.45		Sept. 18, 1918	
1080	Alaska.....			260.67	260.67			260.67			
5701	Alcedo.....			1,936.03	1,936.03			1,936.03			
1036	Amagansett.....			1,873.77	1,873.77			1,873.77		May 17, 1917	
1050	Aphrodite.....			2,648.41	2,648.41			2,648.41		June 5, 1917	
5707	Apreilly.....					2,622.49	610.45	3,232.94		Jan. 15, 1918	
1055	Arctic.....			330.92	330.92			330.92		Oct. 17, 1917	
5708	Arcturus.....			16,947.91	16,947.91	835.00	1,784.21	18,068.30	295	June 29, 1917	
5710	Arcturion.....			2,192.29	2,192.29	4,777.28	258.39	6,969.86			
5711	Atlantic.....			14.43	14.43			14.43			
1073	Aurora.....			105.00	105.00			105.00		Sept. 23, 1917	
1079	Aztec.....			1,087.84	1,087.84			1,087.84		June 30, 1917	
5712	Barnegate.....			6,291.62	6,291.62		300,197.84	306,489.46		Oct. 12, 1917	
5713	Barnett.....		3,465.99	3,250.47	3,250.47	40.20	16,504.41	19,755.66	900	Dec. 21, 1919	
5714	Bauman, P. K.....			1,528.69	1,528.69			1,528.69			
5715	Bella.....			322.52	322.52	10.64	781.52	1,114.68	2,500	Apr. 24, 1918	
1113	Berkshire.....		8,515.38	34.00	8,549.38		10,175.21	18,724.59	2,300	May 18, 1917	
5717	Bradley G. H.....						8.87	8.87		May 12, 1917	
5718	Breakwater.....									July 13, 1917	
8650	Brown, Albert.....	\$2,314.08	1,602.50	26.95	3,943.53	1,473.91		1,473.91		Dec. 7, 1917	
1154	Calumet.....			19.93	19.93		5.67	25.60	170		
5720	Cambridge.....			11.33	11.33	36.00		47.33			
1462	Caswell Herman.....			11.33	11.33			11.33	200		
5722	Chesapeake.....	5,205.40	243.99	11,557.09	17,006.48	3,929.70	20,840.13	41,776.31	2,000	May 31, 1917	
5726	Cristobal.....			2,403.29	2,403.29			2,403.29		July 20, 1917	
5728	Corona.....			4,608.38	4,608.38			4,608.38		May 15, 1917	
1239	Corsair.....		311.97		311.97			311.97	1,600		
1239	Courier.....						60.19	60.19			
1250	Cytheria.....			13,589.21	13,589.21	480.00		14,069.21	1,000	Oct. 20, 1917	
5716	Danzler, Bessie H.....		2,225.71	1,688.98	3,914.69		298.23	4,212.92		Aug. 19, 1918	
1290	Dempsey, L. A.....		62.00	1,000.00	1,062.00	1,007.30	538.10	1,599.30		Oct. 13, 1917	

1921—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.							
VESSELS ON SPECIAL DUTY—continued.										
3720	Despatch.....	\$38, 174. 01	\$1, 284. 87	\$74, 896. 12	\$14, 128. 22	\$3, 025. 81	\$92, 680. 15	227	Aug. 11, 1917	...
3721	Dorothea.....		375. 51	375. 51	143. 15	52. 97	571. 63	594	Apr. 30, 1917	...
3722	Druid.....		23, 779. 63	23, 779. 63	981. 61	4, 155. 26	28, 916. 58		Aug. 17, 1917	...
3723	Eagle.....		1, 508. 55	1, 734. 03	38. 76	1, 037. 77	2, 808. 56	434	July 1, 1917	...
3724	Emeline.....		2, 959. 56	2, 959. 56			2, 959. 56		July 14, 1917	...
3725	Florence.....		10. 40	10. 40			10. 40			...
3726	Galates.....		11, 328. 18	11, 328. 18		4, 483. 48	15, 819. 66		Nov. 16, 1917	12
3727	General Putnam.....		54. 00	54. 00		650. 69	704. 69		Nov. 29, 1917	...
3728	Gloucester.....		247. 21	256. 31		18. 71	275. 02		Apr. 7, 1917	...
3729	Guinevere.....	7, 977. 74	1, 094. 27	9, 072. 01			9, 072. 01		May 10, 1917	...
3730	Harvard (ex-Wacouta).....		4, 639. 54	5, 610. 39	24. 91	43. 29	5, 678. 59	285	Dec. 24, 1917	...
3731	Hauli.....		154. 26	154. 26		931. 37	1, 085. 63	375	Nov. 17, 1917	5
3732	Hawku.....		10, 395. 28	16, 460. 58	3, 370. 19	1, 814. 78	21, 645. 55		Nov. 17, 1917	...
3733	Helentia.....	1, 814. 82	4, 250. 48	657. 54	125. 80	4, 361. 30	5, 144. 64		Feb. 23, 1918	...
3734	Herreshoff No. 306.....		6. 25	4. 96		6. 36	4. 96		Mar. 24, 1918	...
3735	Herreshoff No. 308.....								June 10, 1917	...
3736	Herreshoff No. 321.....							65	June 10, 1917	...
3737	Herreshoff No. 322.....							797	Dec. 28, 1917	...
3738	Isabel.....	2, 304. 48	547. 80	2, 852. 28	85. 85	13, 933. 77	22, 046. 12		June 15, 1918	...
3739	Johnson, Catherine.....			3, 490. 86	6. 00	693. 85	3, 117. 76		July 20, 1917	...
3740	Joyance.....		6, 094. 42	8, 995. 50		3, 038. 09	3, 490. 86		May 18, 1917	...
3741	Kaleruna.....		11. 50	2, 453. 41			11. 50		Dec. 5, 1917	...
3742	Kewadin.....		680. 08	680. 08			680. 08	400	June 1, 1917	12
3743	Leopolda, No. 2.....	434. 57	12, 407. 95	12, 842. 52	44. 00	2, 918. 12	12, 818. 52		Oct. 27, 1917	...
3744	Lydia.....	1, 076. 07	10, 183. 16	11, 754. 09	10, 451. 17	1, 738. 27	26, 122. 98		May 16, 1917	...
3745	Madrigonne.....		16, 764. 77	16, 764. 77	1, 970. 89	1, 399. 48	20, 125. 14		June 7, 1917	...
3746	Mann, Charles.....		60. 00	60. 00	3, 122. 45	3. 42	3, 122. 45	2, 000	Oct. 16, 1917	...
3747	Manna Hata.....		378. 84	378. 84	1, 997. 82	15, 890. 54	18, 213. 20		May 10, 1917	...
3748	Margaret.....		5, 431. 99	5, 431. 99	2, 821. 89	490. 24	8, 780. 12		May 25, 1906	12
3749	May.....		5, 232. 34	6, 757. 02	580. 00	1, 738. 27	9, 076. 30			...
3750	May Alice.....		5, 124. 23	5, 124. 23		5, 779. 16	10, 915. 60			...
3751	Mariner.....	202, 758. 66	68, 682. 74	292, 972. 71	49, 392. 37	82, 533. 52	424, 913. 60	2, 660	July 25, 1906	...

Niagara	167,250.10	6,707.08	106,065.95	290,053.13	1,714.77	463.52	1,790.99	Feb. 21, 1918
Nokomis			2,421.91	785.60	51,785.50	468,548.58	2,600	Feb. 15, 1918
Noma			14,467.89	14,467.89	75.50	7,445.24	1,250	Dec. 8, 1917
Nonpareil			15,938.26	15,938.26	108.20	1,414.42	1,530	May 10, 1917
Old Colony			15,938.26	15,938.26			8,800	Apr. 13, 1917
Onward		1,036.00	1,593.17	1,593.17				Sept. 22, 1917
Owera			664.70	664.70			1,589.17	June 15, 1917
Parthenia			1,583.06	1,583.06	2,526.06		4,106.12	
Patchogue			2,750.04	2,750.04	22.16		2,772.20	
Philips, David K.			27.90	27.90	40.26	46.40	114.56	
Piqua			2,938.33	2,938.33			2,938.33	May 21, 1917
Pocomoke	18,309.30	270.19	6,688.02	25,267.51		171.99	25,439.50	Apr. 28, 1917
Pocahontas (ex-Moosehead)		28.35	15,481.78	15,510.13	605.39	6,735.67	710	
Postmaster General		5,730.52	6,248.21	6,248.21	61.08		6,309.29	
Priscilla						98.52		
Raleigh			27.55	27.55			27.55	
Rambler			28.00	28.00			36	Oct. 18, 1917
Realtor			2,408.90	2,408.90			300	July 11, 1917
Remik			170.61	170.61	27.50		432	July 11, 1917
Roamer			61,661.84	61,661.84			89	July 30, 1917
Rogday	60,730.42		1,371.44	1,371.44			61,661.84	
Samoset			3.48	3.48			1,889.46	
Santee		21.48	21.48	21.48			3.48	Nov. 30, 1917
Sapphire							21.48	Sept. 14, 1917
Satellite			1.54	1.54			27	Sept. 7, 1917
Satilla			138,128.90	425,267.18	2,624.63	1,248.49	2,696.35	May 1, 1917
Scorpion	278,502.74	13,655.64			2,673.79	5,761.10	433,752.07	Apr. 11, 1908
Shady Side						3,213.84		
Shuttle		1,251.33		1,251.33			1,251.33	
Shula					61.40		61.40	June 30, 1917
Shula						6.24	6.24	
Sprague			199.12	199.12			199.12	June 7, 1917
S. P. 237 (ex-Mohican)							231	Oct. 9, 1917
S. P. 237 (ex-Ranger)							531.74	Sept. 21, 1917
S. P. 247 (ex-Fulton)			224.49	224.49	74.00	457.74	229	May 21, 1917
S. P. 328 (ex-Margaret)			226.55	226.55	65.00		301.55	
S. P. 408 (ex-Vigilant)			3.04	3.04			3.04	
S. P. 427 (ex-Seneca)			48.56	48.56			48.56	July 18, 1917
S. P. 467 (ex-Delaware)			12,105.42	36,448.55	13,004.78	51,595.24	51,595.24	July 22, 1917
S. P. 507 (ex-Machigonne)	24,343.13		2,341.12	2,341.12	2,141.91	2,241.12	195	May 7, 1917
S. P. 524 (ex-Margaret)			18.60	18.60		452.71	161	Nov. 17, 1917
S. P. 582 (ex-Halcyon)						87.07	87.07	July 1, 1917
S. P. 609 (ex-Pawnee)							75	June 20, 1917
S. P. 838 (ex-John L. Lawrence)	20,184.21	78.00			76.00	76.00	20,911.53	June 20, 1917
Sultana			468.72	20,780.93	103.82	76.78	229	June 20, 1917
Sylvia			3,448.43	3,448.43			390	May 27, 1917
Sylvia	28,739.79	661.68	12,807.26	42,238.73	2,474.31	2,731.71	152	Aug. 18, 1908
Tramp			20,226.22	20,226.22		1,892.55	31,118.77	June 20, 1908
Vedette					880.23		880.23	
Vega			4,000.67	4,000.67	15.69	1,895.28	4,000.67	May 28, 1917
							1,910.97	Sept. 17, 1917

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
VESSELS ON SPECIAL DUTY continued.											
2281	Venetia.....			\$3,716.10	\$3,716.10	\$1,024.95	\$2,185.90	\$6,926.95	589	Oct. 15, 1917	.....
8791	Vergara.....			4,981.26	4,981.26	279.17	3,705.16	8,965.59	128	Apr. 16, 1917	.....
8812	Vixen.....	\$155,005.81	\$15,630.67	126,676.08	297,312.56	14,217.11	11,367.87	322,897.54	806	Apr. 11, 1898	.....
8793	Wacandah.....			1,801.48	1,801.48		1,125.85	2,927.33	190	Sept. 14, 1917	.....
8794	Walena.....			15,174.74	15,174.74	1,326.00	1,559.31	18,060.05	250	Jan. 14, 1918	.....
8795	Wakile.....			3,468.01	3,468.01			3,468.01	853	Aug. 6, 1917	.....
8796	Wanderer.....			2,616.87	2,616.87		75.00	2,691.87	362	July 14, 1917	.....
8813	Wasp.....			11,450.67	11,450.67	2,742.01	3,705.61	17,898.29	630	Apr. 11, 1898	.....
8797	Wenonah.....			11,400.90	11,400.90	754.67	2,105.89	14,261.46	290	Oct. 22, 1917	.....
8798	Winchester.....			41.86	41.86		1,065.28	1,107.14	399	Mar. 9, 1918	.....
2420	Xarifa.....		50.00	99.69	149.69	12.25		161.94	378	Feb. 23, 1918	.....
8799	Yacona.....	47,047.72	430.95	19,635.72	67,114.39	12.75	1,677.69	68,804.83	527	Dec. 10, 1917	.....
8814	Yankton.....			42,148.46	42,148.46	501.40	2,499.70	45,149.56	975	May 16, 1898	.....
8800	Zara.....		3.78	205.27	209.05		1,880.55	2,089.60	184	Oct. 21, 1917	.....
2443	Zoraya.....			15.00	15.00			15.00	129	Dec. 17, 1917	.....
	Total.....	1,001,008.06	328,162.82	993,467.32	2,322,638.20	198,150.33	1,094,206.87	3,614,995.40			

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equiptage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
8706	Advance.			\$1,634.95	\$1,634.95	\$117.50	\$275.35	\$2,027.80	92		
1080	Achardite.						232.22	232.22			
1085	Acile.		\$22.32		22.32			22.32			
8708	Arcton.			2.92	2.92			2.92			
8710	Atlantic.			7.00	7.00			7.00	92		
8713	Barnett.						7,124.57	7,124.57			
8715	Bella.							78			
8716	Bessie H.			21.00	21.00			21.00			
1238	Corsair.					34.36		34.36			
8730	Danzler.					2,360.15		2,360.15			
8730	Dispatch.	\$3,454.49	506.15	5,936.14	9,896.78	1,648.93	1,037.33	12,583.04	92		
8603	Eagle.						64.11	64.11			
8605	Gloucester.			15.36	15.36			15.36			
8740	Havoli.		193.92		193.92			193.92			
8606	Hawk.	45.00		1,229.87	1,323.75	853.49		2,177.24	92		
8747	Isabel.	22,860.40	48.88	34,452.39	57,312.79	76,267.64	52,054.14	185,634.57	75		17
7006	Johnson, Catherine.			550.20	550.20			550.20			
8749	Lagonia, II.			722.26	2,280.33			2,426.63	92		
8754	May.	1,567.07		1.74	1.74	115.50	20.80	2,426.63			
8608	Mayflower.	52,398.68		19,842.76	72,241.44	117.13		90,292.50	92		
1779	Montauk.					12,866.67	5,588.96	686.61			
1810	Naima.		294,903.89		294,903.89	97.65		294,903.89	92		
8760	Naushon.						4.67	4.67			
8761	Niagara.	40,416.15	217.83	9,733.23	50,367.21	4,326.73	26,885.22	81,579.16			24
8762	Nokomis.	6,426.45	95.32	190.80	6,711.57	4,738.36	103,981.28	116,431.21	68		
8763	Nonpareil.						22.56	22.56			
8767	Parthenia.						.03	.03			
8768	Patchogue.		40.00	2,452.15	2,492.15			2,492.15			92
1917	Piqua.			587.20	4,542.76		331.04	331.04			
7691	Pocomoke.	3,930.36	25.20	4,634.71	4,634.71	8.00	458.67	5,001.43	92		
6758	Porpoise (ex-Moosehead).						742.12	5,394.83	92		
8774	Samoset.		.78		8.21		6.05	6.83	92		
2040	Santee.							8.21			

* Credit.

¹ All out of commission 92 days unless otherwise shown.

1922—Continued.

No.	Name of vessel.	Title C.			Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including communications.	Stores issued, including provisions.				Days in full commission.	Operating with reduced complements in reserve or ordinary.
8609	Scorpion.	\$59,581.86	\$523.46	\$30,128.32	\$90,233.64	\$85.02	\$92,920.00		
8782	S. P. 467 (ex-Delaware).	6,220.53		5,772.92	11,993.45	1.35	11,994.80	92	
2077	S. P. 699 (ex-Pawnee).						44.04		
8788	S. P. 838 (ex-John L. Lawrence).						942.44	92	
8610	Sylph.	7,563.77	20.15	18.32	18.32	424.47	12,385.65		
8611	Silvia.			3,547.96	11,131.90		918.96	92	
8612	Vixen.	22,131.43	665.21	12,732.15	35,538.79	981.68	36,976.01	92	
2307	Wachusett.		5.38		5.38	571.58	583.68		
8793	Wacandah.					22.56	22.56		
8794	Wadena.					17.60	17.60	27	65
8613	Wasp.	6,875.15	547.68	1,173.63	8,596.66		8,597.60		
8799	Yacoma.						8,596.66		
5614	Yankton.					151.08	151.08		
	Total.	233,470.34	297,846.17	135,379.99	666,696.50	105,642.71	978,068.63		

Mr. KELLEY. I suppose these vessels were hunting submarines like that, were they not, in 1917 and 1918?

Admiral POTTER. Yes, sir.

Mr. KELLEY. How many of these converted yachts did we have in 1916?

Mr. REED. We had 16 of them in 1916.

Mr. KELLEY. There must be 100 here.

Admiral POTTER. Yes, sir; there are at least 100.

Mr. KELLEY. Some of them run into quite a little bit of money.

Admiral POTTER. There are only a few in commission now.

Mr. KELLEY. Do you happen to know why the expenses of the *Agara* should run for 1921 to \$788,385?

Admiral POTTER. I am under the impression that she was ordered preparatory to going down to Mexico, where she served on special duty for a number of months.

Mr. KELLEY. What about the *Scorpion*?

Admiral POTTER. She is at Constantinople.

Mr. KELLEY. Is she a large vessel?

Admiral POTTER. No, sir; she is a good-sized yacht.

Mr. KELLEY. I notice she cost \$433,752.07.

Mr. REED. They put extensive repairs on her at Constantinople. I think that a part of that expenditure is undoubtedly represented by the pay of a considerable personnel that was stationed at in the neighborhood of Constantinople.

Mr. KELLEY. This is the major ship at Constantinople?

Mr. REED. Yes, sir.

Mr. KELLEY. The item for the *Vixen* is \$322,897.54.

Admiral POTTER. I do not know what her duty was.

Mr. KELLEY. Do these vessels carry guns?

Admiral POTTER. About 3-inch guns.

TUGS.

Mr. KELLEY. How many tugs did we have in 1916, and what was expense?

Admiral POTTER. There were 50 tugs in 1916, and the total expense was \$1,020,403.08.

Mr. KELLEY. How many tugs did we have in 1921, and what the expense?

Mr. REED. There are 145 in this list for 1921.

Mr. KELLEY. What was the total expense?

Admiral POTTER. The total expense was \$4,769,193.61.

Mr. KELLEY. For the first three months of 1922 what was the expense?

Admiral POTTER. We had 113 tugs at an expense of \$1,144,295.58.

Mr. KELLEY. At that rate, we are using tugs more this year than year, considering the lower cost?

Admiral POTTER. At that rate, the annual expense would be \$76,000.

Mr. KELLEY. You may insert your tables at this point.

Admiral POTTER. I will do so.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipping.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).						Full commission.	Commission in reserve.
TUGS.											
504	Accomac.			\$1,291.78	\$1,356.78	\$4,455.56	\$5,812.34	187	1898	12	
522	Active.		\$85.00	3,583.60	3,583.60	6,566.41	10,150.01	296	1898	12	
524	Alire.			490.40	490.40	1,204.01	1,754.41	318	1898	12	
534	Apache.			1,936.74	3,609.46	3,217.61	6,827.07	650	1898	12	
545	Arapaho.			4,208.50	6,208.76	3,018.35	9,225.11	575	1898	12	
519	Choctaw.			312.67	13,888.04	1,238.89	15,126.93	274	1898	12	2, 1914.
529	Fortune.			19,995.58	50,170.84	7,827.44	50,563.84	450	1894	12	
507	Hercules.			1,949.74	1,949.74	2,853.29	9,777.18	198	1898	12	
536	Froquois.			12,867.33	31,723.19	2,853.29	34,581.48	702	1898	12	
505	Iwawa.			1,500.88	1,500.88	6,541.86	8,042.74	192	Dec 20, 1891.	12	
508	Massasoit.			1,108.00	1,108.00	2,292.93	3,400.93	202	1898	12	
516	Modoc.			2,665.05	2,665.05	9,213.60	5,380.37	241	1898	12	
546	Mohave.			5,438.98	11,800.41	9,213.60	21,074.01	575	1914	12	
526	Mohawk.			2,047.83	2,047.83	7,628.52	13,372.95	368	1898	12	
506	Narkeeta.			2,312.10	3,206.76	11,325.12	10,885.28	192	Dec 20, 1891.	12	
541	Navajo.			35,386.00	69,644.86	7,628.52	73,213.39	800	Nov 2, 1907.	12	
543	Ontario.			19,721.25	59,041.79	12,100.18	65,141.97	1,120	Aug 24, 1912.	12	
533	Oscuela.			15,108.72	36,984.16	21,637.30	58,621.46	571	1898	12	
537	Osceola.			18,984.22	50,418.45	10,651.21	61,069.66	755	1908	12	
538	Patapeco.			20,864.23	44,986.72	15,630.47	60,617.19	755	1908	12	
520	Pawnee.			1,610.44	2,780.46	3,772.65	6,503.10	275	1898	12	
511	Pawtucket.			5,196.27	13,060.06	2,732.16	15,801.21	226	1898	12	
511	Pennacook.			2,607.42	7,078.99	2,834.22	9,913.21	230	1898	12	
512	Pennacook.			2,137.14	3,481.70	7,066.08	10,576.78	230	1903	12	
512	Pennacook.			17,120.53	42,850.80	2,764.86	45,615.16	497	1898	12	
512	Pennacook.			19,040.78	40,044.00	5,108.40	45,150.40	584	1898	12	
512	Pennacook.			65.60	502.37	19.20	519.20	575	Building.	12	
549	Pontiac.			12,228.83	45,185.65	1,200.60	46,386.25	401	1898	12	
527	Pontiac.			2,565.77	4,113.09	8,992.07	13,105.16	785	1898	12	
529	Pontiac.			2,743.73	2,743.73	1,825.07	4,568.80	194	1898	12	
529	Pontiac.			1,158.48	1,158.48	6,200.35	7,358.83	206	1898	12	
513	Randolph.			2,540.22	2,540.22	2,684.84	5,225.06	225	1898	12	
513	Randolph.			1,774.17	1,774.17	2,284.09	4,058.26	248	1898	12	
517	Sagadahoc.			1,253.15	1,253.15	2,782.84	4,036.00	1,120	Mar 20, 1897.	12	
517	Sagadahoc.			2,782.84	2,782.84	2,782.84	5,565.68	1,120	Mar 20, 1897.	12	
517	Sagadahoc.			2,782.84	2,782.84	2,782.84	5,565.68	1,120	Mar 20, 1897.	12	

NAVY	APPROPRIATION	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2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1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.							
TUGS.										
7215	Adirondack (ex-Underwriter)	\$21,090.57	\$3,409.03	\$3,409.03	\$94.03	\$9,522.88	\$13,025.94	1,000	May 15, 1920	
7034	Algeria	29,085.79	\$496.53	78,022.67	15,783.59	32,083.81	119,500.07	1,000	Dec. 5, 1918	
7014	Alleghany (ex-Huron)	35,572.00	39,010.08	69,707.87	3,872.91	32,506.08	103,178.86	575	Feb. 8, 1918	
7371	Araba		112.57	53,091.86	3,740.12	42,923.40	96,265.38	650	Dec. 2, 1888	
7021	Aspinet (ex-Apache)		10.00	2,382.92	743.08	21,438.54	3,800.32	1,000	Sept. 18, 1919	12
7269	Bazouet		1,281.08	40,282.40	23,498.37	3,906.79	105,090.37	1,000	July 1, 1911	
7372	Catwa (ex-Howard (green))		13,428.23	13,428.23	98.94	11,012.78	27,431.91	194	Mar. 14, 1917	
7018	Cayuga		8,752.21	8,752.21	2,183.85	23,650.41	34,536.46	575	June 8, 1918	
7204	Chemung (ex-Pocahontas)	9,200.38	40,288.81	51,277.44	2,181.27	4,423.07	104,197.87	1,000	Aug. 20, 1920	
7204	Clark, Joseph M.		1,745.57	50.00	20,007.04	10,713.10	131,762.35	1,000	Aug. 26, 1918	
7659	Concord		1,745.57	1,745.57	172.92	4,423.07	56.00	54.00		
7206	Conitcook	34,138.15	38,927.92	73,477.73	20,007.04	10,713.10	104,197.87	1,000	Aug. 20, 1920	
7035	Conwell, Francis		411.61	73,477.73	20,007.04	10,713.10	104,197.87	1,000	Aug. 26, 1918	
7205	Carabasset (tug No. 35)	45,557.25	47,458.35	93,836.10	19,605.35	18,320.90	131,762.35	1,000	Aug. 26, 1918	
7206	Cullen, Dorothy		278.84	278.84	900.00	924.32	2,101.10	450	June 2, 1917	
7274	Fortless		104.02	104.02	5.00	11.98	71,777.53	480	June 2, 1917	
7374	Fortune	42,597.90	583.52	69,655.43	2,101.10	21.00	71,777.53	732	June 24, 1917	
7275	Gargona		1,277.19	1,277.19	1.51	9,098.39	26,174.09	108	July 1, 1911	
7202	Goucher, S. M.		13.74	13.74	521.30	9,098.39	26,174.09	108	July 1, 1911	
7208	Grampus (ex-Boothbay)		112.76	15,655.00	327.43	19,098.15	18,460.39	108	July 1, 1911	
7275	Hercules (purchased)		83.02	83.02	494.18	8,281.10	18,460.39	108	July 1, 1911	
7275	Hercules		9,755.05	9,755.05	494.18	8,281.10	18,460.39	108	July 1, 1911	
7445	Hiawatha		273.17	273.17	3.20	8,281.10	273.17	164	July 1, 1911	
zero	Ica	27,835.03	328.98	62,600.47	19,072.66	12,526.20	94,196.23	1,000	Aug. 2, 1918	8
7203	Iuka (tug No. 37)		24,436.46	62,600.47	19,072.66	12,526.20	94,196.23	1,000	Aug. 2, 1918	8
7203	Iwawa	29,301.03	7,381.66	43,911.29	770.45	27,877.14	75,786.98	1,000	July 1, 1911	13
7203	Iroquois	36,442.99	14,610.26	89,600.28	3,950.55	27,877.14	75,786.98	702	July 6, 1898	13
7208	Kahala	19,391.87	83,370.37	40,894.65	18,290.33	31,005.71	133,906.32	1,000	Nov. 18, 1919	12
7204	Koonamqua	6,801.33	23,708.23	40,894.65	18,290.33	31,005.71	89,606.68	1,000	Dec. 9, 1920	6
7204	Kewadin	55,831.91	31,304.02	96,167.95	24,494.95	4,148.73	97,228.61	1,000	Nov. 4, 1919	6
7277	Koka		2,265.04	38,283.96	24,494.95	4,148.73	97,228.61	1,000	Feb. 18, 1920	12
7209	Lively (ex-Active)		594.02	9,998.20	305.00	11,000.41	24,344.61	266	July 1, 1911	13
7209	Mahoe	29,642.28	2,984.27	52,707.71	1,070.53	3,498.59	56,206.77	1,000	Oct. 20, 1919	13
7209	Mariner		176.00	176.00	1,070.53	3,498.59	56,206.77	1,000	Oct. 20, 1919	13
7209	Megawatt		4,081.44	5,070.19	1,070.53	3,498.59	56,206.77	305	Feb. 1, 1911	15
7209	Megawatt		17,714.87	17,714.87	1,070.53	3,498.59	56,206.77	305	Feb. 1, 1911	15
7209	Megawatt		17,714.87	17,714.87	1,070.53	3,498.59	56,206.77	305	Feb. 1, 1911	15

City	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	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1922.

[First quarter.]

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
	TUGS.								
7215	Adirondack (ex-Underwriter).....			\$2,457.83	\$29.52	\$122.46	\$2,612.81		
7034	Algerma.....	\$8,773.72	\$3.00	15,254.73	15,027.37	6,559.63	36,641.63		
7019	Alleghany (ex-Huron).....	9,520.57		24,291.52	52.90	3,366.78	27,711.20		
7014	Arapaho.....	6,912.48	8.10	13,316.44	109.82	2,260.17	15,746.43		
7371	Aspinet (ex-Apache).....			249.61			249.61		92
7021	Bagaduce.....		284.00	7,200.64	1,263.68	12,225.02	20,779.34		
7209	Catawba (ex-Howard Green).....			3,834.95	300.70	164.06	4,003.03		
7372	Cayuga.....			2,189.35	300.70	304.86	2,794.91		
7018	Chemung (ex-Peachontas).....			6,126.63	321.16	221.91	6,672.70		
1540	Clark, Joseph M.....								92
7204	Clico.....	303.67		362.13	16.11	70.51	738.42		
7036	Contacook.....	12,424.73		28,194.61	371.35	707.72	29,383.68		
7207	Conwell, Francis.....								92
7035	Carrabasset (Tug No. 35).....	12,463.39		29,371.57	1,379.90	3,226.37	33,880.74		
7206	Fearless.....		1.03	41.28		.02	41.30		92
7374	Fortune.....	7,033.01		10,967.99	72.02	1,241.00	11,041.91		
7202	Grampus (ex-Boothbay).....			3,995.64	103.68	5,645.28	9,641.22		
7208	Hercules (purchased).....			15.47		37.25	5,680.72		
7375	Hercules.....			2,371.34	1,308.61	342.30	3,707.20		92
7037	Iuka (Tug No. 37).....	13,153.49		28,761.67	1,486.38	3,784.47	39,593.25		
7032	Iwano.....			1,515.40					
7276	Iroquois.....	16,068.18		25,993.77	163.95	3,784.47	39,593.25		
7033	Kabala.....	9,992.87	61.69	9,884.90	894.45	8,044.38	34,822.63		
7038	Koonaukus.....	10,422.71	142.32	12,031.44	314.99	338.16	22,516.78		
7034	Kewardin.....	11,211.50		15,517.64	1,661.96	819.30	17,498.80		
7031	Koka.....	16,045.96		25,165.45	529.53	4,178.07	30,173.15		
7037	Lively (ex-Active).....		200.07	25,662.49	511.33	12,295.04	28,229.70		
7039	Mahopoe.....	10,305.94	112.00	10,984.42	671.53	12,295.04	28,229.70		
7277	Manomet.....			21,402.26	563.55	8,714.97	30,680.88		
7278	Manomet.....			796.28		423.94	1,220.12		92

[illegible]**Reserve.**

Credit.

All tugs in commission 92 days unless otherwise shown.

1922—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations for ships, including equipage.	Total maintenance and operation.	Status.		
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	
TUGS—continued.											
7071	Tug No. 71.....			\$1,020.98		\$1,020.98		\$3,027.37			
7072	Tug No. 72.....							825.00			
7073	Tug No. 73.....			2,030.50		2,030.50	\$380.20	2,597.84			
7074	Tug No. 74.....						\$11.75	\$11.75			92
7075	Tug No. 75.....										
7076	Tug No. 76.....			857.58		857.58		62.34			
7077	Tug No. 77.....			1,123.53		1,123.53		1,412.01			92
7078	Tug No. 78.....							288.48			
7079	Tug No. 79.....			1,476.49		1,476.49		1,334.20			
7080	Tug No. 80.....						21.00	1,505.86			
7081	Tug No. 81.....			1,476.49		1,476.49		500.28			92
7082	Tug No. 82.....		\$1.56	2,349.07		2,350.63	102.30	2,053.21			
7083	Tug No. 83.....							2,120.29			
7084	Tug No. 84.....			124.98		124.98		166.55			
7085	Tug No. 85.....		28.20					291.53			92
7086	Tug No. 86.....							28.20			
7087	Tug No. 87.....					28.20		278.86			
7088	Tug No. 88.....							2,591.85			
7089	Tug No. 89.....							86.42			
7090	Tug No. 90.....		76.60			546.40		58.67			
7091	Tug No. 91.....			469.80				546.40			
7092	Tug No. 92.....							228.00			92
7093	Unadilla.....							325.98			
7094	Unadilla.....	\$9,545.04	38.08	17,174.24		26,737.36	1,104.07	34,733.71			
7095	Unadilla.....		48.03	1,412.95		1,460.98	38.96	6,871.38			
7096	Unadilla.....			4,062.27		4,062.27	46.35	12,540.09			
7097	Unadilla.....			1,278.26		1,278.26	179.36	1,457.62			
7098	Unadilla.....			234.25		234.25		1,703.18			
7099	Unadilla.....							1,468.93			
7100	Unadilla.....			14,490.04		24,063.93	1,421.59	26,094.41			
7101	Unadilla.....	10,085.87	119.02	6,834.91		12,985.92	477.84	17,366.55			
7102	Unadilla.....	6,146.31	4.70	354.08		3,579.44		3,892.79			92
7103	Unadilla.....			9,496.29		18,753.95	1,065.23	26,762.69			
7104	Unadilla.....	8,583.71	673.95	587.60		587.60	1,220.00	5,622.90			
7105	Unadilla.....										
7106	Unadilla.....										
7107	Unadilla.....										
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7236	Unadilla.....										
7237											

. KELLEY. Are these tugs coal burners?

. REED. There are 31 oil burners and 7 coal burners.

MOTOR PATROL BOATS.

. KELLEY. The next are motor patrol boats.

miral POTTER. We had none in 1916.

. KELLEY. How many did we have in 1921, and what did they

miral POTTER. The amount for 1921 was \$243,799.63.

. KELLEY. I presume there were about 150?

miral POTTER. Yes, sir; about 150.

. KELLEY. What was the expense for the first quarter of 1922?

miral POTTER. \$32,860.31.

. KELLEY. We are getting out of the motor patrol boats pretty

miral POTTER. Yes, sir; we have about 20.

. KELLEY. At this point put in the tables for 1921 and 1922
ie patrol boats.

miral POTTER. Very well.

[illegible]

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including rationed stores.	Stores issued, including provisions and medical stores.							
MOTOR PATROL BOATS—contd.											
828	Nettie.....			\$42.15	\$42.15			\$42.15		June 20, 1917	
7794	Nightingale.....			324.80	324.80			324.80		June 9, 1917	
7795	Olympic.....			54.78	54.78			54.78			
1863	Onset.....			28.75	28.75			28.75			
1871	Osprey II.....	\$1,298.48			1,298.48	\$226.96		1,525.44			
7799	Paloma.....					1,473.91		1,473.91	118	May 4, 1917	
7800	Panama.....			19.80	19.80			19.80		May 26, 1917	
7802	Patrol No. 5.....			71.08	71.08			71.08		Apr. 13, 1917	
7803	Patrol No. 6 (ex-Bonita).....						\$267.80	267.80		June 20, 1917	
7805	Patrol No. 10 (ex-Hull; 3288).....						89.36	89.36		Oct. 31, 1917	
1897	Pattina.....						12.50	12.50		Oct. 22, 1917	
1900	Pearl.....			108.00	108.00			108.00		Aug. 23, 1917	
7807	Privateer.....			34.45	34.45			34.45		Aug. 15, 1917	
7809	Quick Silver.....		\$430.44		5,944.16	1,150.37	1,036.50	8,131.23		May 26, 1917	
1904	Qui Viva.....			75	75	8.07		8.82		June 22, 1917	
1909	Raezoo.....			10.00	10.00			10.00		July 21, 1917	
7810	Raezoo.....			56.84	56.84			56.84		May 19, 1917	
1974	Ranger (ex-Patrol Angel).....			134.80	134.80			134.80		July 30, 1917	
1981	Regis II.....			485.82	485.82		6,454.37	6,454.37		July 17, 1917	
1986	Rickwood.....			193.29	193.29	22.66		215.95		June 15, 1917	
7812	Riette.....			51.60	51.60			51.60		Aug. 25, 1917	
7813	Rockport (ex-Ajax).....						22.07	22.07		June 15, 1918	
7815	Rutuma.....			9.50	9.50			9.50		June 26, 1917	
2010	Sabalo.....			.40	.40			.40		July 30, 1917	
2052	Sayonara II.....					17.35		17.35		May 8, 1917	
2116	Sea Tac.....						100.91	100.91		Aug. 1, 1917	
2065	S. P. 426 (ex-Sequoiah).....		882.00		882.00			882.00			
2069	S. P. 571 (ex-Pocomoke).....		20.40		20.40			20.40			
2050	Saxus.....			62.98	62.98			62.98			
2079	S. P. 705 (ex-Lexington II).....		1.50		1.50			1.50			
2097	S. P. 544 (ex-Sea Gull).....			1.04	1.04			1.04			
7824	Shark.....			90.23	90.23			90.23		May 24, 1917	
7825	Shirr.....			65.56	65.56	3.40	96.40	165.36		June 22, 1917	
7826	Shirr.....					2,708.66	225.00	2,933.66			

7339	P. No. 396 (ex-Navajo II)	5.93	7.62	75.00	80.93	June 25, 1917
7340	P. No. 411 (Susanne)	7.02	7.72		7.72	Aug. 3, 1917
7341	P. No. 460 (ex-Aurora II)					Oct. 1, 1917
7342	P. No. 672 (ex-Miramar I)	319.65	1,163.62		1,163.62	Aug. 31, 1917
7343	P. No. 673 (ex-Miramar I)					Aug. 9, 1917
7344	P. No. 730 (ex-Lynx II)	741.40	741.40		741.40	Aug. 30, 1917
7345	P. No. 810 (ex-Itasca)	175.35	175.35		175.35	May 18, 1917
7346	P. No. 817 (ex-Estelle)	22.68	22.68		22.68	July 31, 1917
7347	P. No. 789 (ex-Dixie)			525.00	525.00	Dec. 7, 1917
7348	P. No. 912 (ex-Borethea II)	8.00	8.00	3.50	11.50	
7349	P. No. 1092 (ex-Elizabeth)			2.23	2.23	
7350	P. No. 1209 (ex-Ellen)			10.95	10.95	Aug. 2, 1917
7351	P. No. 2173 (ex-Horshoff 322)			21.08	21.08	Apr. 13, 1918
7352	Sparrow II	60				Sept. 25, 1918
7353	St. Marys	57.75	57.75		57.75	
7354	Sturdy	71.50	71.50		71.50	
7355	Suzanne	81.70	81.70		81.70	June 25, 1917
7356	Tacony	114.18	114.18		114.18	May 18, 1917
7357	Tanwha	1,296.36	1,296.36		1,296.36	May 24, 1917
7358	Tarantula	40.00	40.00		40.00	May 14, 1917
7359	Thistle	1.00	1.00		1.00	
7360	Taylor, A. B.			6.74	6.74	Dec. 26, 1917
7361	Toad	1,000.00	1,000.00		1,000.00	
7362	Toad	23.79	23.79		23.79	
7363	Trine			29.20	29.20	
7364	Traveler	14.43	14.43		14.43	July 14, 1917
7365	Trine			3.42	6.87	Aug. 28, 1917
7366	Victor	3.45	3.45		6.87	Nov. 27, 1917
7367	Venture				4.00	Aug. 27, 1917
7368	Virginia	4.00	4.00		4.00	May 5, 1917
7369	Vision	143.00	143.00		143.00	Aug. 27, 1917
7370	Wendy	63.96	63.96		63.96	Oct. 22, 1917
7371	Wemootah	215.71	215.71	4.92	210.79	July 7, 1917
7372	Wemootah	.66	.66		.66	
7373	Wego			38.90	38.90	Aug. 3, 1917
7374	Wendy	3,070.40	3,070.40	3.25	3,073.65	June 25, 1917
7375	Wild Goose	4.68	4.68		4.68	Aug. 11, 1917
7376	Zumbrota	1,827.49	1,827.49	352.82	6,908.41	
7377	Total	11,378.48	111,009.13	56,803.95	243,799.03	12

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹		
		Accrued pay.	Miscellaneous expense, including communications.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
MOTOR PATROL BOATS.											
7707	Aramis.....			\$3,982.69	\$3,982.69	\$475.10	\$6,830.03	\$11,287.82			
1065	Asp.....		\$295.38		295.38		86.54	354.92			\$ 92
7714	Bayvean.....			471.90	471.90			471.90			
7715	Ble and Schiott.....						3.12	3.12		92	
7724	Clarenda.....			475.30	475.30	83.14	4,498.24	5,044.68		92	
7727	Commodore.....		359.67	4,716.04	5,075.71			5,075.71			
7728	Constance II.....					652.66	628.52	1,281.18		92	
1345	Edithyn.....					11.08		11.08			
7741	Edithis.....			\$ 45.28	\$ 45.28	15.70		20.98		92	
7754	Helori.....	\$2,965.24	48.65	1,234.73	4,249.62	94.80	1,898.19	6,230.66		92	
7766	Kangaroo.....						11.42	11.42			
7776	Lydia.....			64.71	64.71			64.71		92	
7783	Marja.....			17.86	17.86	65.87		88.73		92	
7807	Privateer.....		38.08	387.45	425.53	945.78	47.64	1,418.96		92	
1974	Ranier (ex-Patrol Angel).....							59.40			
7813	Rockport (ex-Ajax).....						\$ 22.07	\$ 22.07			
2010	Sabalo.....			507.17	507.17			507.17			
7824	Shark.....						98.30	98.30			
7839	S. P. No. 289 (ex-Navaajo II).....						\$ 75.00	\$ 75.00			
7874	Zumbrota.....			670.45	670.45	5.27	268.49	972.21		92	
	Total.....	2,965.24	741.78	12,463.02	16,191.04	2,549.45	14,319.82	32,860.31			

¹ All motor patrol boats out of commission 92 days unless otherwise shown.

\$ Reserve.

\$ Credit.

SPECIAL TYPE OF VESSELS.

Mr. KELLEY. Now, give us the figures for the special types of vessels for 1916.

Admiral POTTER. Of the special types we had in 1916 10, at a total expenditure of \$1,771,557.50.

Mr. KELLEY. And in 1921?

Admiral POTTER. Thirteen vessels at a total expenditure of \$5,673,923.08, and in the first quarter of 1922, 13 vessels at a total expenditure of \$2,279,682.20.

Mr. KELLEY. At that rate it would make \$9,000,000 for special types?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Are you familiar with these ships?

Admiral POTTER. Some of them I know about and some I do not. I see here a tender for the operative squadron that went down to Panama last year; that is, the *Black Hawk*; I see a repair ship and the air tenders *Shawmut* and *Aroostook*. As I say, the *Black Hawk* was a tender for the operative squadron that went to South America with us. Admiral Coontz can give you those types exactly.

Mr. REED. \$976,000 of the expenditures for the first quarter of 1922 are represented by repairs, which throws the actual rate away up?

Mr. KELLEY. That is true, and we would have to take that into account.

Mr. REED. Yes.

Admiral POTTER. And the *Columbia* is in this year's list.

Mr. KELLEY. How much did we expend on the *Columbia* before we decided to turn her back to the Shipping Board?

Admiral POTTER. For the first quarter the expenditure was \$229,767.02.

Mr. KELLEY. You do not know how much additional will be required for that ship?

Admiral POTTER. No, sir.

Mr. KELLEY. Have you any idea?

Mr. REED. We probably have the data in the office now where it could be assembled.

Mr. KELLEY. It might be of some little help to us, inasmuch as we will not have that ship again, and we would know how much was spent on her. Then put in at this point the tables as to the special types.

Admiral POTTER. Very well.

Expenditures during first two quarters of fiscal year 1922 for the "Columbia," ex-"Great Northern."

[Includes only expenditures reported to Mar. 1, 1922.]

Accrued pay.....	\$265,652.94
Miscellaneous expense, including commuted rations.....	1,220.17
Stores issued, including provisions.....	113,008.47
Total operating expenses.....	379,881.58
Equipage.....	313,532.13
Repairs and alterations to ship, including equipage.....	216,378.94
Total maintenance and operation.....	909,792.65

1916.

No.	Name of vessel.	Title C.				Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including provisions and medical stores).	Full commission.						Commission in reserve.	
SPECIAL TYPE.												
951	Albatross.....	\$58,206.64	\$1,102.43	\$13,973.10	\$73,342.17	\$31,329.15	\$73,342.17	4,413	Jan. 7, 1890	12		
876	Baltimore.....	171,806.68	4,167.00	77,167.92	253,141.60		284,470.75	4,000	June 7, 1898	12		
958	Fish Hawk.....	24,569.36		15,021.46	39,590.82		39,590.82	4,000	June 7, 1898	12		
601	Hamthal.....	101,325.91	2,856.96	43,236.27	147,419.14	35,591.78	183,010.92	3,285	Apr. 16, 1898	12		
910	Lebanon.....	34,131.66	134.90	36,400.12	70,666.68	20,494.73	91,161.41	4,023	May 21, 1898	12		
602	Leonidas.....	102,068.84	4,765.45	39,313.35	146,147.64	27,966.06	174,113.70	12,585	Jan. 15, 1910	12		
852	Prometheus.....	150,357.64	5,635.30	81,725.52	237,718.46	35,283.61	273,002.07	4,083	Aug. 21, 1911	12		
875	San Francisco.....	171,605.44	4,968.50	67,833.20	244,437.14	89,202.10	333,639.24	12,585	Oct. 4, 1909	12		
851	Vestal.....	207,120.09	6,420.78	75,710.13	289,251.00	16,719.81	305,970.81	12,585	June 7, 1890	12		
900	Vesuvius.....			2,650.29	2,650.29	10,605.32	13,255.61	630				
	Total.....	1,021,192.20	30,141.32	453,031.36	1,504,364.94	267,192.56	1,771,557.50					
	Equipage.....						442,889.38					
	Total.....						2,214,446.88					

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Ton- nage.	Date of first commission.	Months in com- mission.
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including pro- visions and medical stores.							
SPECIAL TYPE.											
8815	Aroostook (ex-Bunker Hill)	\$712,228.76	\$16,550.30	\$199,095.49	\$827,874.55	\$37,009.01	\$65,344.62	\$1,030,228.18	3,800	Jan. 7, 1918	12
8801	Baltimore	298,622.66	11,963.57	178,444.80	489,031.03	42,456.21	91,407.40	622,894.64	4,413	Jan. 7, 1890	12
8817	Black Hawk	656,193.63	25,798.03	464,281.14	1,146,272.80	120,748.95	122,970.43	1,389,992.18	13,500	May 15, 1918	12
1157	Canandaigua		270.30	37,157.54	37,427.84	9,319.74	7,892.33	54,639.91	7,620	Mar. 9, 1918	
1178	Canonicus (ex-EI Slid)			22,745.19	22,745.19		10,918.04	33,663.23	7,620		
1475	Housatonic		5.18	3,020.87	3,026.05		31,342.72	43,756.82	7,620	Jan. 25, 1918	
1992	Ronoke (ex-Eldia)			43,486.08	43,486.08	9,388.05	32,186.98	84,731.36	7,620		
8806	San Francisco	354,363.98	7,647.45	186,388.35	548,399.78	9,038.30	75,029.84	670,636.01	4,083	Nov. 15, 1890	12
2044	Saranac (ex-Hamilton)			16,198.62	16,198.62	47,206.39	597.77	16,796.39	5,150	Aug. 9, 1918	
7931	Shawmut (ex-Massachusetts)	432,956.31	12,850.78	211,059.49	656,866.58	42,180.27	140,215.31	839,262.16	3,800	Jan. 7, 1918	
8807	Vestal	492,879.44	18,958.74	216,034.86	727,873.04	60,620.02	57,102.76	845,595.82	12,585	Oct. 4, 1909	12
8808	Vesuvius		974.01	20.11	994.12	1.75	2,552.93	3,548.80	500		
8894	Wright, A. Z.			552.00	552.00	11,469.73	26,155.85	38,177.58	14,240		
	Total	2,947,244.78	95,018.36	1,578,484.54	4,620,747.68	389,458.42	663,716.95	5,673,923.08			

1923.

[First quarter.]

Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
	Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
1st TYPE.									
USS (1st)	\$284,939.15	\$2,156.64	\$44,832.51	\$331,928.30	\$7,490.29	\$41,304.40	\$380,722.99	.....	.....
.....	96,190.18	2,146.01	36,379.97	134,716.16	790.99	5,381.58	140,878.73	.....	.....
.....	124,669.95	5,736.30	56,332.88	185,729.13	8,449.15	5,422.52	195,600.90	.....	.....
.....	.....	.....	.....	.....	.....	182,310.01	182,310.01	.....	.....
.....	.....	.....	.....	.....	98.00	182,728.45	182,816.45	.....	.....
.....	79,735.48	51.26	81,301.87	161,088.61	28,255.86	40,422.55	230,767.02	.....	.....
.....	.....	.....	.....	.....	.....	176,109.86	176,109.86	.....	.....
.....	81,032.32	.....	14,416.08	95,448.40	8,232.38	183,195.51	183,195.51	.....	.....
.....	.....	.....	.....	.....	.....	183,195.51	183,195.51	.....	.....
.....	113,498.73	1,825.79	50,401.71	165,716.23	10,605.98	5,396.34	178,388.04	.....	.....
.....	106,343.59	4,083.37	40,335.17	149,762.13	3,136.77	2,602.95	155,501.81	.....	.....
.....	.....	.....	190.80	190.80	13,348.15	163,033.67	163,578.69	.....	.....
.....	885,389.40	13,999.37	328,196.99	1,222,585.76	80,389.55	976,708.89	2,279,682.20	.....	.....

* Credit.

¹ All special type out of commission 92 days unless otherwise shown.

No.	Name of vessel.	Accrued pay.	Miscellaneous expense, including commuted rations, medical stores.	Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
	SPECIAL NONPOWERED.										
1211	Chittenden, John W.						\$527.79	\$527.79			
8819	Christine.						131.14	131.14			
8839	Green, William F.						29.24	29.24			
1450	The Harvest Queen.			\$690.67	\$690.67			690.67		Sept. 28, 1917	
8828	McCurdy, Robert H.			2.38	2.38			2.38		July 18, 1918	
8831	Raymond.			3.50	3.50			3.50			
2120	Seneca.		\$3.50	6,271.61	6,271.61	\$121.11	3,238.48	9,631.20			
8834	Semour, Henry.					39.19		39.19			
8896	Superior.					39.19		39.19			
	Total.		3.50	6,964.60	6,968.16	190.49	3,626.65	11,094.30			

NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS.

Mr. KELLEY. The next are the naval overseas transportation ships.

Admiral POTTER. In 1916 we did not have any.

Mr. KELLEY. What did we spend on these in 1921?

Admiral POTTER. In 1921 the total charges for the naval overseas transportation service ships were \$443,803.

Mr. KELLEY. There is a list above that; that is a supplemental list. I think that all of the totals appearing on pages 142, 143, and 144 should be added.

Admiral POTTER. These are the figures for the straight ships, \$1,794,740.54.

Mr. KELLEY. What kind of ships are they? Do they have any guns on them?

Admiral POTTER. I think they had some guns mounted during the war for defense against submarines, and that sort of thing.

Mr. KELLEY. But they are not fighting ships at all?

Admiral POTTER. They are supply ships and transports that were being operated across the ocean, and I think the bulk of the charges in here, if not all of them, represent delayed settlements on account of the vessels. I notice there is only \$13,000 for pay in that whole group.

Mr. KELLEY. Then what is the total for the first three months of 1922?

Admiral POTTER. \$98,033.11.

Mr. KELLEY. What has become of the rest of these ships?

Mr. REED. They have been turned back to the owners.

Mr. KELLEY. This list, you think, is practically a hangover and it will come out almost entirely next year?

Mr. REED. Yes, sir.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

No.	Name of vessel.	Title C.						Repairs and alterations to ships, including equipage.	Equipage.	Total operating expenses.
		Miscellaneous expense, including provisions and medical stores.	Stores issued, including provisions and medical stores.							
	NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS.									
1003	Absaroka.	\$3.89	\$3.89							\$3.89
1004	Alaskan.	153.66	153.66							160.46
1005	Alloway (ex-Shutaka).	\$6.80						\$4,063.69		4,070.49
1006	American.							3,050.13		3,050.13
1007	Aniwa.	11,899.49	11,899.49					3,220.86		15,120.35
1008	Antilla.	13.47	13.47							13.47
1009	Argonne.	1,180.53	1,180.53					9,236.13		10,416.66
1010	Arsonne.	1056						\$4,883.89		4,883.89
1011	Arizona.	84.03	84.03					31,200.24		31,200.24
1012	Ausable.	210.62	210.62					19,419		19,419
1013	Banaga.	94.53	94.53					10,107.11		10,107.11
1014	Berwyn.	8.00	8.00					4,018.10		4,018.10
1015	Burford.	6,667.53	6,667.53					28,282.21		34,950.74
1016	California.	560.70	560.70					157.83		718.53
1017	Cambas.	1152						571.80		1,723.80
1018	Canton (ex-Hercules).	17.00	17.00					45.00		62.00
1019	Cape Henry.	6.00	6.00							6.00
1020	Cape May.	1180	1180					28,282.21		29,462.21
1021	Cape Lookout.	1181						141.80		1,322.80
1022	Cape Romalne.	1184								1,184
1023	Carib.	1185								1,185
1024	Cardinian.	102.45	102.45					2,346.79		2,449.24
1025	Carlito.	13.07	13.07					192.47		205.54
1026	Cauto.	22.87	22.87					1,70		23.57
1027	Challenger.	691.17	691.17					1,685.95		2,377.12
1028	Charlton Hall.	1196	1196					16,551.75		17,747.75
1029	Chatham (ex-Margaret).	1201	1201					18.84		1,219.84
1030	Choctaw.	14.82	14.82							14.82
1031	Clare.	7,927.48	7,927.48					2,885.23		10,812.76
1032	Cohasset.	3.92	3.92					111.16		115.08
1033	Corozal.	505.84	505.84					10.64		516.48
1034	Crozier Hall.	1.67	1.67					9.60		11.27
1035	Growth, Peter H.	19.02	19.02							19.02
1036	Cubore.	1246	1246					15.75		1,261.75
1037	Dakota.	1261	1261					51.50		1,312.50
1038	Defiance.	1265	1265					1.80		1,266.80
1039	Democracy (ex-Jupiter).	1268	1268							1,268
1040	Durham (ex-Sherman).	1294	1294					690.68		1,954.68

1921—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—contd.											
1301	Eastern Chief.		\$5.96	\$159.66	\$165.62		\$6,640.28	\$6,640.28	9,606	Sept. 27, 1918	.....
1302	Eastern Light.				165.62		23.38	23.38	12,105	Nov. 12, 1918	.....
1303	Eastern Queen		24.00	1,598.40	1,592.40		1,592.40	1,592.40	12,105	Oct. 26, 1918	.....
1304	Eastport.			171.44	171.44		171.44	171.44		Oct. 18, 1918	.....
1308	Edenton.		7.75		7.75				13,627	Dec. 5, 1918	.....
1309	Edgemont.		21.80		21.80			21.80			.....
1312	Edith.			16,828.95	16,828.95	\$1,186.39	242.62	18,257.96	7,335	Oct. 1, 1918	.....
1316	El Capitan.						30.91	30.91	10,200	Mar. 22, 1918	.....
1324	El Comodoro.			70.62	70.62		105.03	175.65	8,785	Mar. 30, 1918	.....
1318	El Oriente.						356.22	356.22		Aug. 28, 1918	.....
1319	El Oriente.						30.45	30.45		July 29, 1918	.....
1320	El Sol.						91.40	1,979.48		Aug. 3, 1918	.....
1341	Eureka.			1,888.08	1,888.08	97.50	66.06	104.21		Sept. 21, 1918	.....
1342	Evansville (ex-Lake Tahoe).		323.90	5,407.41	5,731.31		4,321.61	10,052.91	8,040	Feb. 16, 1918	.....
1350	Fairmont.			53.33	53.33		347.64	400.97	12,163	Feb. 19, 1918	.....
1354	Federal.					9.00	4,641.36	4,650.36	13,130	Nov. 15, 1918	.....
1375	Fraser, Herman C.							1,694.40	9,000	Sept. 19, 1918	.....
1380	Frederic.		2,174.61	1,694.40	1,694.40		2,662.91	13,942.44	12,600	June 22, 1918	.....
1381	Frida.			9,104.92	11,270.53		859.86	1,393.95		Oct. 19, 1918	.....
1401	General Gorgas.			534.09	534.09	14.35	337.35	2,555.51	12,163	July 22, 1918	.....
1409	Glen White (ex-Tidewater).			2,233.09	2,233.09		589.42	2,278.21	7,980	May 21, 1918	.....
1427	Guantanamo.			3,645.88	3,645.88		3.42	122.67	10,505	Dec. 23, 1917	.....
1451	Haiteras.			1,688.79	1,688.79		1,435.73	1,616.33	12,000	Aug. 10, 1918	.....
1452	Hawaiian.		2.90	119.25	180.60			9.66	10,562	Nov. 16, 1918	.....
1466	Hickman.		9.66	177.70			704.75	1,376.05	6,000	Nov. 6, 1918	.....
1468	Hilton.		670.30		670.30		105.00	702.40			.....
1488	Hoxbat.			597.40	597.40				16,000	Nov. 16, 1918	.....
1497	Independence.			3,035.95	3,035.95			3,035.95	16,000	Dec. 12, 1918	.....
1499	Indianapolis.			96.45	96.45			96.45	15,942	Oct. 17, 1918	.....
1501	Invincible.			226.67	226.67			226.67	14,375	Feb. 12, 1918	.....
1502	Iowa.		73.92	6,231.58	6,305.50	102.00	2,394.52	8,802.02	4,474.20	Apr. 12, 1918	.....
1505	Itasca.		61.16	68.34	149.50	197.08	4,127.62				.....

1921—Continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations, medical stores.							
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—contd.										
1632	Lake Pleasant.		\$83.18	\$83.18		\$30.20	\$113.38		Sept. 8, 1918	
1633	Lake Port (ex-Peurguin).		5,222.57	5,222.69	\$58.74	98.11	5,440.54	4,400	Jan. 21, 1918	
1636	Lake Shore (ex-War Shell).		11,921.15	11,921.15		1,437.03	13,358.18	4,400	Jan. 11, 1918	
1637	Lake Side.		1,006.31	1,905.77	97.00	257.82	2,260.59	4,400	Jan. 25, 1918	
1638	Lake Silver.		78.13	3,785.10			3,785.10		Aug. 15, 1918	
1631	Lake St. Clair.	\$3,640.85	4.00	90.90		1,759.06	1,848.96		Oct. 31, 1918	
1635	Lake St. Regis.		202.56	202.56		200.66	400.22		Oct. 17, 1918	
1639	Lake Sunapee.		2,225.83	2,249.64		1,026.06	3,275.70		Nov. 19, 1918	
1640	Lake Superior (ex-War Bayonet).		5,575.14	6,631.07		19,652.94	26,284.01	4,300	Nov. 30, 1918	
1641	Lake Traverse.		97.76	97.76	9.37	2,760.07	2,867.20	4,800	Jan. 19, 1918	
1642	Lake Tular.		76.23	144.90			144.90		do	
1643	Lake View.		10,365.77	10,370.08			10,370.08	4,700	Feb. 23, 1918	
1644	Lake Weston.		37.25	37.25			37.25	4,880	Nov. 25, 1918	
1645	Lake Winico.		222.09	222.09		615.40	837.49		Aug. 6, 1918	
1646	Lake Winoski.		17.39	17.39			17.39		Nov. 25, 1918	
1647	Lake Wood.		8,952.01	8,952.01		469.33	9,451.94	1,400	Nov. 25, 1918	
1648	Lake Worth.		2,446.64	2,467.64		352.82	2,820.46	4,480	Dec. 15, 1917	
1649	Lake Yahara.		22.69	22.69		80.89	103.58		Feb. 26, 1918	
1650	Lake Ypsilanti.		17.37	63.74		2,973.66	3,037.40			
1651	Laucaster.		142.97	142.97	14.83	2,076.20	2,219.17	14,620	June 19, 1918	
1659	Levisa.		50.70	50.70		106.72	157.42		Nov. 19, 1918	
1660	Liberator.		187.67	187.67		7,992.47	8,180.14	8,800	Nov. 19, 1918	
1661	Liberty.		706.12	706.12		18,383.78	19,089.90	13,912	July 7, 1918	
1676	Luckenbach, Edgar F.		7.00	7.00	23.64	18,182.37	18,189.37	13,130	Oct. 7, 1918	
1677	Luckenbach, Edward.		218.89	218.89		52,904.96	53,123.85	15,963	July 11, 1918	
1682	Luckenbach, F. J.		56,755.81	56,755.81		15,686.35	72,442.16	15,963	Aug. 29, 1918	
1683	Luckenbach, Frederick.		731.42	785.20		1,933.58	2,738.78		June 9, 1918	
1678	Luckenbach, Julia.		391.40	397.70		6,382.29	6,779.99		Oct. 5, 1918	
1679	Luckenbach, Katrina.		15.75	15.75		51.55	67.30	16,533	Aug. 15, 1918	
1680	Luckenbach, K. I.		122.60	122.60		11,556.53	11,679.13	16,000	May 18, 1918	
1681	Luckenbach, Walter A.		130.06	130.06		17,134.33	17,264.39	17,000	Aug. 9, 1918	
1704	Maona.		103.21	103.21		702.29	805.50	8,900	June 9, 1918	
1711	Major Wheeler.		106.86	106.86			106.86		Aug. 19, 1918	

1767	Alaska	17.16	34.76	34.76	47,830.40	40.98	3,542.37	3,621.11	19,580	Dec. 22, 1917
1768	Alaska		205.43	205.43	47,830.40		2,065.76	2,301.19	Dec. 22, 1918	
1769	Alaska	47,434.10	405.21	405.21			105,005.12	154,805.52	Oct. 30, 1918	
1770	Alaska		6,647.45	6,647.45		1.18	1,530.25	7,066	Dec. 9, 1918	
1771	Alaska		893.31	893.31			1,972.78	10,562	Oct. 16, 1918	
1772	Alaska		19,033.57	19,033.57		29.88	2,895.09	8,900	Aug. 16, 1918	
1773	Alaska		2,897.69	2,897.69		17.90	281.56	10,400	Jan. 14, 1918	
1774	Alaska		18,893.38	18,893.38		10.35	23.82	10,000	Sept. 17, 1918	
1775	Alaska		1,577.11	1,577.11		6.38	18,813.73	2,921.51	Apr. 27, 1917	
1776	Alaska	93.03	2,884.16	2,884.16			1,583.49	7,345	Dec. 17, 1917	
1777	Alaska		133.29	133.29			3,091.20	8,735	July 25, 1918	
1778	Alaska		78.40	78.40			133.29	8,490	Apr. 26, 1918	
1779	Alaska		68.10	68.10			78.40	12,270	Nov. 4, 1918	
1780	Alaska		54	54			1,032.99	12,250	Nov. 16, 1918	
1781	Alaska		184.40	184.40			3,564.68	16,008	Oct. 28, 1918	
1782	Alaska		911.07	911.07			3,346.99	12,400	Dec. 31, 1918	
1783	Alaska		5.53	5.53			4,721.37	14,500	May 1, 1918	
1784	Alaska		3,040.26	3,040.26			4,484.85	8,490	Aug. 7, 1918	
1785	Alaska	776.64	211.06	211.06			3,820.48	8,490	Sept. 30, 1918	
1786	Alaska		13.78	13.78			13.78	12,153	Dec. 18, 1918	
1787	Alaska		5.00	5.00			2,832.51	14,500	Aug. 12, 1918	
1788	Alaska		168.25	168.25			3,123.04	8,060	Sept. 13, 1918	
1789	Alaska		2,779.47	2,779.47			3,764.66	12,570	May 13, 1918	
1790	Alaska	71.00	71.00	71.00			71.00	8,490	Oct. 4, 1918	
1791	Alaska		323.60	323.60			323.60	8,490	Dec. 8, 1918	
1792	Alaska		170.00	170.00			17.66	13,130	Dec. 18, 1918	
1793	Alaska		6.39	6.39			12.14	8,545	Aug. 27, 1918	
1794	Alaska		5.75	5.75			445.16	5,731.29	Aug. 2, 1918	
1795	Alaska		46.42	46.42			7,679.03	14,623.71	May 13, 1918	
1796	Alaska		155.50	155.50			44.60	6,375	Mar. 1, 1918	
1797	Alaska		6,944.68	6,944.68			4,221.58	13,600	July 9, 1918	
1798	Alaska		55.25	55.25			756.25	11,526	June 25, 1918	
1799	Alaska		44.60	44.60			57.14	8,900	Apr. 20, 1918	
1800	Alaska		4,217.24	4,217.24			7,293.41	7,332.72	Aug. 12, 1918	
1801	Alaska		2,136.39	2,136.39			2,057.67	13,340	July 1, 1918	
1802	Alaska		38.31	38.31			4,533.65	11,500	Aug. 17, 1918	
1803	Alaska		156.14	156.14			487.71	5,607.00	Oct. 1, 1918	
1804	Alaska		83.25	83.25			2,564.92	9,769	Sept. 14, 1918	
1805	Alaska		80.32	80.32			752.25	2,751.92	Dec. 1, 1917	
1806	Alaska		102.90	102.90						
1807	Alaska		5,678.00	5,678.00						
1808	Alaska		3,038.20	3,038.20						
1809	Alaska		1,999.67	1,999.67						
1810	Alaska		1,999.67	1,999.67						

1921 - continued.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and commuted rations.							
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS contd.										
2192	Sixola.						\$4,921.31		Sept. 19, 1918	
2194	Skinner.		\$332.60	\$5,867.40	\$2,097.98	14,921.31	9,533.92	12,200	Apr. 12, 1918	
2197	Sudbury.		3,299.46	3,289.86		1,598.54	3,889.86	10,400	Mar. 4, 1918	
2200	Tanamo.		22.08	47.88	9.20	600.00	335.56	6,000	Sept. 13, 1918	
1355	Tatusig, Felix.			346.72		278.48	346.72	12,925	Aug. 31, 1918	
2216	Texan.		4.38	4.38		1,629.70	1,634.08	18,000	Mar. 23, 1918	
2224	Thompson, Robert M.		528.04	528.04			528.04	6,000	Aug. 30, 1918	
2227	Thurlow, Lewis K.		59.02	59.02			59.02			
2229	Tiger.				21.00	2,619.45	2,640.45		Dec. 23, 1918	
2237	Victorious.		328.93	328.93			328.93	15,942	Oct. 21, 1918	
2292	Virginian.		172.50	197.50		6,821.56	7,019.06	19,120	June 14, 1918	
2308	Wakulla.		198.37	285.76		4,763.69	5,059.45	12,186	June 26, 1918	
2315	Wasale.					7.06	7.06	12,220	Feb. 1, 1919	
2317	Watowan.		1,660.00	1,660.00			1,660.00	12,220	Oct. 25, 1918	
2318	Watbesa.		6.86	6.86			6.86	12,220		
2316	Wauthenia.				1,839.45		1,839.45			
2323	West Alseck.				98.64		98.64	12,226	June 4, 1918	
2324	West Apau.		3,330.59	3,330.59		2,619.30	5,949.89	12,226	June 20, 1918	
2325	West Arrow.		3.71	3.71			3.71			
2326	West Avon.		224.46	224.46			224.46			
2327	West Bridge.		4,072.09	4,072.09			4,072.09	12,200	July 27, 1918	
2328	West Camifax.		173.48	173.48			173.48			
2330	West Chester.	8.00		8.00		15,227.85	15,235.85	12,185	Aug. 10, 1918	
2331	West Coast.	13,629.06		13,721.43		1,962.87	15,674.30	12,200	Aug. 9, 1918	
2333	West Cobalt.		192.37	13.79			13.79			
2334	West Compo.		3.72	3.72			3.72			
2335	West Corum.		3.71	3.71			3.71			
2336	West Cressy.	11.04		11.04			11.04	12,226	Dec. 17, 1918	
2337	West Ekone.		719.65	719.65			719.65	12,226	July 14, 1918	
2338	West El Cajon.		3.71	3.71			3.71			
2339	West Escaro.	20.95		26.95	304.92	897.61	1,232.48	12,200	Oct. 23, 1918	

	810,000.00	4,100.83	76.26	14,278.79	18,063.70	12,185	June 18, 1918
Western Ocean			22,001.47	22,001.47	22,001.47	12,185	Oct. 17, 1918
Western Plains		123.36		123.36	677.91	12,185	June 30, 1918
Western Sea					474.60	12,185	July 2, 1918
Western Spirit						12,185	Aug. 21, 1918
Westford			7,590.10	7,590.10	7,645.93	12,186	Mar. 29, 1918
West Galois		10.00	53.00	63.00	63.00	12,225	Aug. 7, 1918
West Gate			28,141.37	28,141.37	45.44	12,225	
West Gokomaka			22.86	22.86	22.86	12,225	
West Grama			261.94	261.94	261.94	12,225	
West Haven						12,225	
West Hecobac					2,744.70	12,225	
West Hecobac					759.75	12,225	
West Hecobac					1,463.15	12,225	
West Humhaw		20.61	95.46	95.46	28.61	12,225	
West Indian (ex-War Diamond)			368.51	368.51	2,806.70	12,225	
West Kyska		8,541.75	95.46	95.46	6,993.78	12,225	
West Lashaway		1,406.54	41,579.51	42,986.05	1,463.15	12,225	
West Lianga			111.52	111.52	96.46	12,225	
West Loquinsuck			9,550.14	9,550.14	16,644.58	12,225	
West Madaket		13,504.86	17,325.83	30,830.69	43,381.48	12,225	
West Mahomet		483.73	167.41	7.54	2,708.90	12,225	
West Mead			17,806.25	17,806.25	31,965.37	12,225	
West Modus			17,806.25	17,806.25	658.68	12,225	
West Mount			20,472.07	20,472.07	28,213.69	12,225	
West Over			43.65	43.65	20,479.94	12,175	
West Point			837.55	837.55	43.65	12,205	
West Point			17,648.22	17,648.22	2,165.09	12,150	
Westport		1,247.63	321.12	1,568.75	40,058.47	12,150	
West Shore			219.06	219.06	1,568.75	12,000	
Westward-Ho		5.94	42.86	42.86	32,000.95	12,185	
West Wauna			178.03	178.03	727.32	12,185	
West Wood			8.91	8.91	5.94	12,175	
West Zeda		2.85	510.28	507.45	5,911.79	12,175	
Williamatic		950.76	11,941.69	12,792.45	4,695.08	10,600	
Winding Gulf			10.97	10.97	484.97	12,163	
Yellowstone			53.03	53.03	10.97	12,570	
Zirkel					21,648.57	12,600	
Total	13,650.45	121,345.35	611,928.99	745,924.79	1,027,519.55	1,794,740.54	

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commutations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
1044	Aniwa.....			\$2,423.05	\$2,423.05			\$2,423.05		
1057	Arizona.....			228.42	228.42			228.42		
1117	Berwyn.....			17.00	17.00	\$453.00		470.00		
1179	Canton (ex-Hercules).			11.50	11.50			11.50		
1182	Cape May.....					48.63		48.63		
1184	Cape Romaine.....			17.00	17.00			17.00		
1191	Carillo.....			13.20	13.20			13.20		
1203	Chebaulip.....					585.10		585.10		
1242	Craster Hall.....					4.60		4.60		
1246	Crowell, Peter H.....			1.66	1.66			1.66		
1261	Dakotan.....			\$23.30	\$23.30	\$192.69		\$215.99		
1265	Defiance.....			854.33	854.33			854.33		
1303	Eastern Light.....			67.50	67.50	30.12		97.62		
1300	Eastport.....					694.04		694.04		
1305	Eastern Shore.....					631.29		631.29		
1308	Edenton.....			30.12	30.12	30.12		30.12		
1309	Edgcombe.....					202.50		202.62		
1312	Edith.....			1,734.95	1,734.95			1,734.95		
1318	El Occidente.....					\$16.19		16.19		
1350	Fairmont.....					66.25		66.25		
1427	Guantanamo.....			1,428.39	1,428.39	16.85		1,445.24		
1507	Isanti.....					190.68		190.68		
1557	Korean.....			1,251.30	1,251.30			1,251.30		
1626	Lake Ontario.....			18.66	18.66			18.66		
1629	Lake Pepin.....			4.81	4.81			4.81		
1637	Lake Side.....		\$4.81							
1638	Lake Silver.....			1.00	1.00			1.00		
1662	Lake St. Peter.....		18.73		18.73			18.73		
1662	Luckenbach, F. J.....		76.62		76.62			76.62		
1679	Luckenbach, Katrina.....					220.71		220.71		
1706	Morristown.....			3,145.07	3,145.07			3,145.07		
1708	Munroe.....			38,261.47	38,261.47	7.95		38,269.42		
1791	Mundella.....			3,427.49	3,427.49			3,427.49		

TANKERS.

Mr. KELLEY. Now, the tankers?

Admiral POTTER. In 1921 the expenditure for the tankers was \$443,803.65. For the first three months of 1922, tankers, \$6,457.89.

Mr. KELLEY. Does that mean that they are being put out of use, too?

Mr. REED. Or turned back.

REFRIGERATORS.

Admiral POTTER. These are accumulated charges. Then, for the naval overseas transportation service ships, refrigerator group, in 1921 the expenditure was \$321,483.96.

Mr. KELLEY. We did not have any of those in 1916?

Admiral POTTER. No, sir. The total number of those vessels was 11 and we have 4 for 1922; the charges against the 4 amount to \$2,314.13.

Mr. KELLEY. So it looks as though they were being gotten rid of?

Admiral POTTER. Yes, sir; they are only accumulated charges.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

No.	Name of vessel.	Accrued pay.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
	NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—TANKERS.										
1016	Arwidale		\$2,337.23	\$6.92	\$6.92	\$23.75	\$37.10	\$67.77		Nov. 16, 1918	
1035	Amabala (ex-Alabama)			477.30	2,337.23	211.40	67.76	2,616.39		Aug. 21, 1918	
1071	Auburn			227.00	477.30			12,314			
1137	Broad Arrow		132.88	359.88	359.88		588.11	947.99	17,802	Mar. 17, 1918	
1140	Buck, Frank H.			15,787.27	15,787.27		85.63	15,872.90		Apr. 23, 1917	
1205	Chestnut Hill			54,389.38	54,389.38		2,334.76	56,726.14	10,150	Mar. 14, 1918	
1208	Chinampa (ex-Cushing)			4.50	4.50	62.00	496.90	501.40	13,675	Oct. 14, 1918	
1233	Connelly, John M.		165,754.08	339.13	166,093.21			166,093.21	10,150	May 18, 1918	
1541	Cudahy, Joseph			133.00	133.00			133.00	7,045		
1541	Dochra			5,685.51	5,685.51		92.04	6,614.92	10,000	Oct. 21, 1917	
1777	Doherty, Edward L. III.		887.37	4,264.18	5,322.88		36,603.13	40,867.31	18,220	Nov. 25, 1918	
1777	Gargoyle (ex-Pennott)		1,419.15	160.30	4,264.18		1,044.40	1,204.70			
1892	Goldshell			6,314.85	6,314.85	35.55	24,897.04	24,902.59	12,000	Aug. 8, 1917	
1428	Guffey, J. M.							6,314.85	5,500	Oct. 14, 1918	
1430	Henry, George G.							5,895.90	13,179	Dec. 7, 1917	
1470	Hisko							46,908.41	14,955	do.	
1483	Houma							2,484.46			
1487	Hoven							23,108.38	7,045	Mar. 1, 1918	
1510	Isom, William							303.98		Aug. 9, 1917	
1670	Los Angeles							2,286.06		June 10, 1918	
1942	Pratt, Herbert L.							18,275	18,275	Aug. 22, 1917	
2169	Standard Arrow							9,832.62	11,070	Sept. 18, 1918	
2186	Steed, W. L.		63.00	74.12	137.12	9,606.41	106.09	756.76	18,610	July 19, 1918	
2236	Sylvan Arrow		61.51	542.55	542.55		214.21	78.73			
2398	William Rockefeller			78.73	78.73			540.57			
2236	Topla			3.12	3.12			543.69			
2404	Winifred			7.94	7.94			20,271.39	5,880	June 21, 1918	
	Total		170,605.22	91,696.72	262,271.94	10,144.14	171,387.57	448,803.65			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.	Days out of commission.
NAVAL OVERSEAS TRANSPORTATION SERVICE SHIPS—TANKERS.										
1071	Auburn.....			\$1,096.16	\$1,096.16			\$1,096.16		
1277	Doheny, Edward L. III.....					\$408.24	\$4,542.31	5,010.55		
1470	Hisko.....		\$351.18		351.18			351.18		
	Total.....		351.18	1,096.16	1,447.34	408.24	4,542.31	6,457.89		

¹ All naval overseas Transportation Service tankers out of commission 92 days.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
NAVAL VESSELS, TRANSPORTATION SERVICE SHIPS—REFRIGERATOR.											
1151	Calamares.			\$11,213.73	\$11,213.73		\$18,567.43	\$29,781.16	10,562	Apr. 10, 1918	
1419	Ice King (ex-Passaic).		\$36.00	36.00	19,436.47	\$217.00	19,436.47	19,689.47	8,785	July 3, 1918	
1685	Luella (ex-War Whale).		41,371.64	66.25	41,437.89	89.88	57,811.67	57,811.67	8,785	May 27, 1918	
1780	Montclair.		8.63	1,229.05	1,237.68		248.88	1,486.56	10,562	Aug. 18, 1918	
1799	Muscatine.						153,258.91	153,258.91	10,562	May 2, 1918	
1846	North Pole.						126.82	126.82	8,785	Dec. 12, 1918	
1870	Oskawa.		149.98	6,404.98	6,554.96			6,554.96	11,570	Jan. 6, 1919	
1926	Polar Bear.		82.50	197.00	279.50			279.50	8,785	Dec. 3, 1918	
1927	Polar Land.		49.50	7.20	56.70		14,131.64	14,188.34	8,835	Nov. 3, 1918	
1928	Polar Sea.			8,592.30	8,592.30		13,962.29	22,554.59	8,835	Oct. 23, 1918	
2018	Sagua.			50.43	50.43		1,702.53	1,752.96	6,000	Aug. 12, 1918	
2158	South Pole.						2,946.33	2,946.33	8,835	Dec. 5, 1918	
2253	Tivives.			7,637.16	7,637.16		3,415.53	11,052.69		July 5, 1918	
	Total.		41,608.25	35,398.10	77,006.35	3,076.45	241,311.16	321,483.96			

1922.

[First quarter.]

No.	Name of vessel.	Title C.		Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
	NAVAL VESSELS, TRANSPORTATION SERVICE SHIPS—REFRIGERATOR.								
1151	Calamaries.			\$42.96			\$42.96		
1870	Oskawa.			2, 196.73			2, 196.73		
1928	Polar Sea.			71.85			71.85		
1929	Polar Star.				\$2.59		2.59		
	Total.			2, 311.54	2.59		2, 314.13		

1 All naval overseas: Transportation Service refrigerator ships out of commission 92 days.

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.	Stores issued, including provisions and medical stores.							
NAVAL OVERSEAS TRANSPORTATION SHIPS—SEAGOING BARGES.											
1917	Cullen, Katherine.		\$5.25	\$20.00	\$25.25		\$21.74	\$46.99		Sept. 28, 1918	
1922	General Knox.						154.02	154.02		Nov. 8, 1917	
1929	Nahant (ex-West Point).			104.60	104.60		224.08	328.68		Aug. 8, 1918	
1930	Old Dominion.						90.46	90.46		do.	
1932	San Joaquin.		248.00		248.00		113.29	361.29		do.	
1937	Walker, J. B.			3.00	3.00			3.00	7,000	do.	
	Total...		253.25	127.60	380.85		603.59	984.44			

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including communications and muted rations.	Stores issued, including provisions and medical stores.							
	CANADIAN DRIFTERS AND TRAWLERS.										
1158	Canadian Drifter No. 30.			\$137.48	\$137.48		\$3.42	\$140.90	150		
1159	Canadian Drifter No. 31.			137.48	137.48		11.15	148.63	150		
1160	Canadian Drifter No. 36.			137.48	137.48		3.42	140.90	150		
1161	Canadian Drifter No. 41.			137.48	137.48	\$280.77		153.25	150		
1162	Canadian Drifter No. 46.			137.49	137.49			137.49	150		
1163	Canadian Drifter No. 50.			137.49	137.49			137.49	150		
1166	Canadian Drifter No. 61.						192.84	192.84	150		
1169	Canadian Drifter No. 78.						252.79	252.79	150		
	Total.			824.90	824.90	\$280.77	463.62	1,007.75			

UNSERVICEABLE SHIPS.

Mr. KELLEY. The next are ships unserviceable for war purposes. They are ships that are being kept on account of their historic value?

Admiral POTTER. Yes; the *Constellation*, the *Constitution*, the *Hartford*, and all those.

Mr. KELLEY. What did they cost us in 1916?

Admiral POTTER. In 1916, \$1,516,663.04.

Mr. KELLEY. And in 1921?

Admiral POTTER. In 1921, \$988,392,884.

Mr. KELLEY. And for the first three months in 1922?

Admiral POTTER. \$276,289.12.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

1916.

No.	Name of vessel.	Title C.		Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including commuted rations).						Full commission.	Commission in reserve.
UNSERVICEABLE FOR WAR PURPOSES.										
950	Adams.....		\$1,244.40	\$2,502.85	\$2,808.87	\$5,311.72	1,400	1876.	12	
953	Boxer.....		25.00	56,928.03	714.24	57,642.27	1,346	1905.	12	
954	Constitution.....	\$422,493.89	6,433.01	681,288.54	6,213.22	687,501.76	1,970	1797.		
955	Cumbarand.....				1,194.39	1,194.39	2,200	1904.	12	
956	Essex.....		1,128.00	2,749.25	1,023.33	10,531.56	1,800	1904.		
957	Franklin.....			1,081.03	3,989.10	3,989.10	1,375	1876.		
959	Gopher.....		837.45	2,450.26	5,145.40	7,694.66	840	1871.	4	
960	Granite State.....		1,243.20	4,142.24	3,207.41	7,349.55	4,150	1818.		
962	Hartford.....			217,739.73	10,094.97	227,774.70	2,700	1858.		12
963	Intrepid.....		15.59	7,100.47	5,487.28	12,587.75	1,900	1904.		
967	Mohegan.....		5,674.67	85,620.56	7,238.50	92,858.06	1,800	No record.	12	
971	Philadelphia.....		1,717.04	18,188.83	11,393.21	54,477.95	4,410	1890.	6	
973	Rainbow.....		270.85	29,808.80	22,974.51	52,783.31	4,900	July 18, 1868.	6	
975	Relief.....		1,516.57	7,982.23	7,926.80	15,909.03	2,835	Dec. 3, 1909.	12	
969	Relief.....				3,852.02	3,852.02	3,900	1898.		
970	Richmond.....			653.03	1,413.75	2,067.38	2,700	1858.	12	
971	Severn.....		9,720.00	131,744.02	2,484.69	134,228.71	1,175	Dec. 3, 1899.	12	
973	Southern.....		89.98	121,409.87	3,705.16	125,115.03	3,100	1898.	12	
974	Torpedo.....			2,300.26	1,652.77	3,953.03	2,255	1898.	12	
974	Wolverine.....		816.90	1,772.03	1,621.65	3,394.28	2,685	1844.		
975	Yantic.....		510.60	1,546.48	1,216.62	2,763.10	900	1894.		
Total.....		852,926.92	31,272.17	1,403,040.22	113,619.82	1,516,603.04				
Equipage.....						379,165.76				
Total.....						1,895,828.80				

No.	Name of vessel.	Title C.		Stores issued, including provisions and medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
	UNSERVICABLE FOR WAR PURPOSES.										
8901	Adams.....	\$21,124.85	\$825.25	\$4,822.50	\$26,882.63	85.00	\$3,050.95	\$29,933.59	1,400	1876.	.....
8902	Old Constellation.....		952.68	16,258.63	17,211.31	296.38	1,851.31	19,458.20	2,920	1797.	.....
8903	Cumberland.....			112.00	112.00	300.00	2,817.95	3,728.95	2,900	1797.	.....
8904	Granite State.....	115,747.97		35,258.00	115,862.65	3,892.18	7.	119,450.43	4,150	1814.	.....
8905	Hartford.....		125.50	15,574.00	54,493.59	10,772.31	29,074.05	75,567.64	4,150	1818.	.....
8906	Intrepid.....			31,874.00	51,767.00	2,679.83	3,214.45	55,041.28	2,700	1858.	.....
8907	Intrepid.....			33,804.60	102,646.39	2,749.79	1,159.52	104,496.11	1,800	1894.	.....
8908	Philadelphia.....	66,412.05	2,459.76	39,794.39	309,766.39	2,831.60	1,696.11	311,462.10	1,800	1895.	.....
8909	Rama Mercedes.....			6,781.80	383,987.54	11,602.38	1,062.21	395,590.13	4,410	1897.	.....
8910	Richmond.....	368,134.99	9,071.25	5,300.00	5,300.00	1,446.48	22.28	6,746.76	2,835	1897.	.....
8911	Southern.....	50,676.21		52,287.66	104,052.15	1,835.83	14,776.52	120,828.61	3,100	1904.	.....
8912	Topeka.....		2,257.14		2,257.14	1,718.32	1,472.91	5,448.37	2,255	1891.	.....
	Total.....	622,096.10	16,759.87	242,301.97	881,157.94	42,706.91	64,327.99	988,392.84			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
UNSERVICABLE FOR WAR PURPOSES.										
8901	Adams.....			\$2,468.05		\$300.53	\$300.53	2,580.34		92
8903	Old Constellation.....					121.26				92
8904	Old Constitution.....					51.83	51.83			92
8905	Cumberland.....			217.70				217.70		92
8908	Granite State.....			32.62				32.62		92
8909	Hartford.....		\$398.23	3,585.92	3,984.15	\$62.26		8,986.48		92
8910	Intrepid.....			4,941.75	4,941.75	19.14		4,975.14		92
8911	Mohican.....	\$24,456.06	3,313.94	2,334.15	30,104.15	190.80	94.11	30,398.15		
8912	Philadelphia.....	215.74	115.33	10,875.61	11,205.68	15,692.53	3,445.96	30,345.77		
8914	Reina Mercedes.....	150,999.80	4,555.61	16,336.81	171,892.22	9,284.52	1,322.36	182,499.10		
8917	Southern.....	4,726.45	28.48	9,847.85	14,602.78	201.04	1,080.24	19,863.06		
	Total.....	180,398.05	8,411.59	50,640.46	239,450.10	29,502.26	7,336.74	276,789.12		

¹ In commission 92 days unless otherwise noted.

EX-FOREIGN SHIPS.

Mr. KELLEY. The next are ex-foreign ships. Of course, we did not have any of those in 1916?

Admiral POTTER. No; but in 1921 we had quite a formidable lot.

Mr. KELLEY. What did they cost us in 1921?

Admiral POTTER. In 1921 they cost us \$11,548,036.35.

Mr. KELLEY. So there must have been a great many on that list?

Mr. REED. Probably 150.

Mr. KELLEY. How much did they cost us during the first three months of 1922?

Admiral POTTER. \$1,153,898.37.

Mr. KELLEY. We did not have any of those before the war, and they are costing us now at the rate of about \$4,600,000 a year?

Admiral POTTER. Yes, sir; there are 57 of them.

Mr. REED. But only 12 of them in active commission?

Mr. KELLEY. These are commercial ships?

Admiral POTTER. Yes, sir. The *Bath* is a cargo carrier, the *Bridgeport* is a supply ship, the *Gulfport* is a cargo carrier, and the *Kittery* is a supply ship. Admiral Coontz can tell you what they are used for.

Mr. KELLEY. About how many did you say there were?

Admiral POTTER. Fifty-seven, against which we have charges for this year, but I think not more than 12 or 14 at the outside are in commission.

Mr. KELLEY. Put in the tables at this point.

Admiral POTTER. Very well.

1921.

Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
	Accrued pay.	Miscellaneous expense, including provisions and medical stores.	Stores issued, including provisions and medical stores.								
EX-FOREIGN.											
Acteon.			\$853.29	\$853.29							
Aeolus (ex-German Grosser Kurhurs).			22.00	22.00		\$96.41	118.41	20,000	July 24, 1917		
Agamemnon (ex-German Kaiser Wilhelm II).			12,441.16	12,530.33		105,944.19	118,474.52	25,530	Aug. 21, 1917		
America (ex-German).	\$89.17		4,312.62	4,312.62	\$884.00	38,304.08	43,500.70	41,700	Aug. 5, 1917		
Amphion (ex-German).			165.65	165.65	161.84	9.47	336.96				
Antigon (ex-German Neekar).			779.59	779.59	523.00	1,135.27	956.94	17,024	Sept. 5, 1917		
Arcadia (ex-German).			2,161.12	2,161.12	112.81		2,273.93	10,000	Jan. 20, 1919		
Artemis (ex-German Bohemia).			10,331.79	10,331.79	93.00	4,567.37	14,992.16	14,456	Oct. 17, 1917		
Astoria (ex-German).			43,916.99	112,930.50	8,240.92	40,401.61	161,593.03	17,300	Nov. 15, 1917		
Bali (D).	\$67,010.52	2,022.99	4,431.16	4,431.16	25.43	19.80	4,476.39		Mar. 27, 1918		
Bath (ex-German Androne).	133,497.36	10,640.11	81,804.69	225,942.16	15,394.35	56,708.65	298,045.16		July 30, 1917		
Beaumont (D).				854.87			854.87		Mar. 28, 1918		
Beaufort (ex-German Rudolph Blumberg).	109,849.69	7,893.25	60,650.96	178,393.90	5,698.16	67,984.72	252,032.78		Sept. 29, 1917		
Besocki (D).		16.53	1,035.76	1,052.29	41.00	12,967.15	14,060.44	8,414	Apr. 2, 1919		
Bukelsvik (D).		56.35	39,814.02	39,870.37	115.56	3,329.70	43,315.63	13,740	Mar. 21, 1918		
Biesbosch.		375.81	4,712.58	5,088.39	4,120.94	967.25	10,176.58	1,100			
Black Arrow.						7,590.92	7,590.92				
Black Hawk (ex-German Rheita).											
Bridgeport (ex-German Breslau).	574,087.39	24,761.40	282,932.05	881,800.84	297,447.87	150,377.62	1,279,626.31	8,000	Aug. 25, 1917		
Bultenborg (D).		6,534.12	4,958.56	11,493.68	1,056.63	2,959.34	15,499.65	14,538	Mar. 29, 1918		
Callao (ex-German).			44.60	44.60		22.58	67.18				
Carnden (ex-German).			174,330.52	634,277.04	156,545.01	183,824.64	974,646.69	4,494	Aug. 15, 1917		
Cap Finisterre (ex-German).			442.27	589.27	2,490.46	4,339.95	7,419.68				
Casco (ex-German Elmhorn).			8,565.13	8,612.70		4,906.82	13,519.61	4,594	Jan. 8, 1917		
Celebes (ex-D).		75	5,649.87	5,650.62	43.02		5,693.64		Apr. 6, 1918		
Chattahoochee.						156.53	156.53				
Chlo (ex-D).			1,358.03	1,358.03			1,358.03		Apr. 3, 1918		
Constantin.			799.90	799.90			799.90	6,000	Apr. 22, 1919		
Corrigton (ex-German).			22.50	22.50		32.23	54.73	16,370	Aug. 28, 1919		

	1, 1108, 108	3175, 09	1, 000, 00	\$205, 04	\$108, 734, 95	\$1112, 001, 05	37, 000	Oct. 11, 1918	Apr. 4, 1918
George Washington (ex-German)	\$17, 70	\$2, 510, 67	\$2, 000, 40	\$205, 04	\$108, 734, 95	\$1112, 001, 05	37, 000	Oct. 11, 1918	Apr. 4, 1918
General Gumbel (ex-German)	61, 00	3, 510, 36	3, 574, 36	2, 06	5, 022, 27	8, 586, 63			
General Gumbel (ex-German)		258, 08	258, 08			260, 14			
The Grath Walderson (ex-German)									
Gudrop (ex-German)	\$65, 775, 36	55, 204, 34	170, 000, 06	6, 192, 47	2, 633, 97	8, 826, 84	3, 800	Sept. 1, 1917	
Houston (ex-German)	167, 518, 61	73, 121, 61	250, 225, 05	15, 356, 19	259, 104, 41	503, 785, 65	9, 000	July 3, 1917	
Huron (ex-German)	8, 484, 38	432, 372, 42	761, 079, 61	14, 030, 09	164, 058, 38	939, 408, 08		July 17, 1917	
Imperial (ex-German)	328, 477, 60	29, 60	156, 60	3, 969, 74	12, 155, 26	16, 281, 60			
Kellogg (ex-German)	127, 00	1, 205, 92	1, 205, 92		408, 35	1, 674, 27		Sept. 28, 1918	
Kernansbach (ex-Austria, ex-Hungary)				1, 900, 04		1, 900, 04		Aug. 3, 1918	
Kernow (ex-President)	102, 108, 79	80, 61	80, 61	643, 58		724, 19		Nov. 1, 1918	
Kerry (ex-President)	3, 300, 24	142, 375, 61	250, 184, 64	16, 399, 54	60, 557, 97	347, 142, 19		July 6, 1917	
Kronland (ex-Netherlands)		75, 403, 90	75, 403, 90	1, 552, 40	10, 087, 11	87, 043, 41	13, 600	Apr. 4, 1918	
Kronland (D)	52, 20	42, 92	75, 95, 12	115, 00	36, 416, 59	36, 626, 71	22, 200	Apr. 25, 1918	
Kaiserin Augusta Victoria (ex-German)									
Levianth (ex-Austria)	66, 71	9, 539, 39	9, 606, 10	970, 20	435, 433, 74	446, 030, 04	58, 000	July 25, 1917	
Levianth (ex-Austria)	118, 18	476, 820, 35	- 476, 820, 35	2, 006, 00	280, 084, 43	768, 028, 44	3, 310	Dec. 20, 1917	
Long Beach (ex-Hohenfeld)	3, 074, 22	30, 476, 67	105, 377, 55	8, 793, 05	63, 595, 91	177, 755, 83	9, 000	Oct. 26, 1918	
Lydia	108, 30	2, 967, 66	3, 065, 96	2, 25	192, 51	3, 250, 72		Mar. 27, 1918	
Martensdijk (D)		3, 546, 64	3, 546, 64		1, 136, 48	4, 683, 32			
Madawaska (ex-German King Wilhelm II)	132, 99	22, 54	110, 45	618, 72		406, 84		Aug. 27, 1917	
Magedena (D)	44, 55	1, 890, 80	1, 935, 35	169, 12	148, 36	2, 104, 47		Apr. 2, 1918	
Malang (D)	4, 618, 83	7, 146, 62	11, 765, 45	226, 80	744, 73	12, 746, 98	13, 235	Mar. 28, 1918	
Merkur (D)		2, 384, 01	2, 384, 01	46, 33	1, 527, 08	3, 957, 42	6, 300	Apr. 30, 1918	
Mercury (ex-Barbours)	31, 93	243, 77	243, 77		166, 36	410, 13	17, 114	Aug. 3, 1917	
Mobile (ex-Barbours)		4, 192, 31	4, 192, 31	4, 745, 49	247, 760, 95	256, 704, 75			
Mocasin (ex-German)	92	114, 96	115, 88	12, 25	3, 954, 15	4, 058, 03	9, 060	Feb. 26, 1918	
Montpelier (ex-German Bocharm)		2, 954, 63	2, 954, 63	10, 99	6, 829, 57	9, 796, 45			
Martin Washington (ex-German)	108, 54	11, 814, 78	11, 923, 32	38, 00	2, 100, 69	14, 035, 00	12, 700	Jan. 2, 1918	
Moun Vernon (ex-Kronprinzessin Cecilia)	40, 00	27, 979, 78	27, 943, 78	19, 130, 58	462, 16	47, 110, 36	25, 000	Aug. 27, 1918	
Nassau (ex-German)	9, 75	399, 71	399, 71	14, 183, 54	223, 935, 47	487, 859, 46	10, 000	July 14, 1917	
Newport News (ex-Odenwald)	5, 350, 52	121, 243, 26	249, 740, 45	15, 536, 02	452, 35	15, 988, 37	17, 000	Apr. 2, 1918	
Oosterdijk		13, 678, 40	13, 678, 40	3, 427, 61	7, 831, 98	21, 510, 38	8, 905	Mar. 25, 1918	
Opbir (D)		189, 792, 15	297, 780, 91		150, 633, 89	461, 842, 41			
Osterriedland	5, 125, 10	2, 300, 55	2, 300, 55		800, 96	3, 191, 51			
Osago		4, 367, 18	4, 367, 18			4, 367, 18		Oct. 8, 1917	
Patricia (ex-German)		99, 980, 76	229, 342, 49	14, 297, 80	143, 318, 36	386, 988, 65	9, 821	Oct. 28, 1918	
Pennoc (German)	121, 553, 71	7, 808, 02	99, 980, 76	9, 613, 90	1, 107, 04	10, 720, 94	11, 000		
Pennoc		9, 613, 90	9, 613, 90						

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including provisions and medical stores.							
EX-FOREIGN.										
0006	Actaeon.....		\$983.29	\$983.29			\$983.29			
0013	Aeolus (ex-German Grosser Kurfürst).....		22.00	22.00		\$96.41	118.41	20,000	July 24, 1917	
0015	Albatross (ex-German Kaiser Wilhelm II).....		12,441.16	12,530.33		105,944.19	118,474.52	25,530	Aug. 21, 1917	
0038	America (ex-German).....	\$89.17	4,312.62	4,312.62	\$894.00	38,304.08	43,500.70	41,700	Aug. 5, 1917	
0040	Amphion (ex-German).....		165.65	165.65	161.84	9.47	336.96			
0049	Antigone (ex-German Neckar).....	28.06	789.39	797.35	523.00	1,135.27	956.94	17,024	Sept. 5, 1917	
0054	Arcadia (ex-German).....		2,161.12	2,161.12	112.81		2,273.93	10,000	Jan. 20, 1919	
0063	Artemis (ex-German Bohemia).....		10,331.79	10,331.79	93.00	4,567.37	14,992.16	456	Oct. 17, 1917	
0066	Astoria (ex-German).....	2,022.99	43,916.99	112,950.50	8,240.92	40,401.61	161,593.03	17,300	Nov. 15, 1917	
0083	Bali (D).....	316.78	4,114.38	4,431.16	25.43	19.80	4,476.39		Mar. 27, 1918	
0101	Bath (ex-German Andromeda).....	10,640.11	81,904.69	225,942.16	15,394.35	56,708.65	298,045.16		July 30, 1917	
0102	Bejam (D).....		854.87	854.87			854.87		Mar. 28, 1918	
0106	Beaufort (ex-German Rudolph Blumberg).....	109,849.69	60,650.96	178,399.90	5,698.16	67,864.72	232,062.78		Sept. 29, 1917	
0118	Besocki (D).....	7,899.25	1,035.76	1,052.29	41.00	12,967.15	14,060.44	8,414	Apr. 2, 1919	
0122	Bulksdijk (D).....	16.53	39,814.02	39,870.37	115.56	3,529.70	43,315.63	13,740	Mar. 21, 1918	
0123	Bushsch.	375.81	4,712.58	5,088.39	4,120.94	867.25	10,176.58	1,100		
0126	Black Arrow.....					7,560.92				
0127	Black Hawk (ex-German Rhætia).....		3,981.72	3,981.72	382.60		4,364.32	13,500	May 15, 1918	
0135	Bridgeport (ex-German Bremen).....	574,067.39	292,932.05	831,800.84	297,447.87	150,377.62	1,279,626.33	8,600	Aug. 25, 1917	
0142	Bultenzorg (D).....	24,761.40	4,908.56	11,493.63	1,056.63	2,669.34	15,499.65	14,538	Mar. 29, 1918	
0150	Callao (ex-German).....	6,524.12	44.60	44.60		22.58	67.18			
0162	Camden (ex-German).....		174,330.52	634,277.04	156,545.01	183,624.64	974,046.69	4,494	Aug. 15, 1917	
0261	Casp Finisterre (ex-German).....	25,631.46	442.27	886.27	2,490.46	4,539.95	7,419.68			
0263	Casco (ex-German Elmhorn).....	147.00	8,565.13	8,612.79		4,906.82	13,519.61	4,594	Jan. 8, 1917	
0266	Celebes (ex-D).....	47.66	5,649.87	5,680.62	43.02		5,693.64		Apr. 6, 1918	
0272	Chattahoochee.....	.75				156.53	156.53		Apr. 3, 1918	
0277	Clio (ex-D).....		1,358.03	1,358.03			1,358.03	4,000	Apr. 22, 1919	
0284	Constantia.....		1,799.90	1,799.90			1,799.90	16,000		

	V-48	1,419.14	1,457.13	2,357.13	786.50	2,001.93	5,000.00	16,000	Apr. 5, 1918
2364	Von Steuben (ex-German Kron-		1,457.13	2,357.13			5,000.00		
2365	prinz Wilhelm)		841.02	2,200.10			4,262.09		
2366	Vere-		2,564.78	2,564.78	281.73	43,924.96	46,771.47	23,500	June 9, 1917
2367	Wabash (ex-German Seneca)		3,358.32	3,358.32		8.08	8.08	4,400	Mar. 21, 1918
2368	Wachusett (ex-German)		10,300.54	10,288.14		565.68	3,964.00	10,475	Feb. 16, 1918
2369	Westdijk (D)		45.73	47.43		1,063.62	11,441.76	9,200	Jan. 9, 1918
2370	Weldrecht	1.70	5,411.24	5,515.07	12.00	7,799.08	7,849.51		Mar. 27, 1918
2371	Wintrecht	103.83	165.06	5,515.07		55.23	5,570.30	7,350	June 2, 1918
2372	Zeelandia (D)		373.55	373.55		16,655.65	18,487.20	11,500	Apr. 2, 1918
2373	Zeppelin (ex-German)		357.76	357.76	1,458.00	3,557.26	3,739.50		Apr. 3, 1918
2374	Zuiderdijk (D)		3,178.09	3,178.09	1,570.00	642.97	4,850.53	11,500	Mar. 24, 1918
2375	Zuiderdijk (D)		37,918.28	76,117.37	1,028.87	20.46	76,137.83		
2376	Zuiderdijk (D)								
2377	Total	2,948,002.14	2,962,458.98	6,087,827.13	879,353.48	4,580,855.74	11,543,036.35		

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operat- ing expenses.	Equipage.	Repairs and alterations to ships, includ- ing equipage.	Total main- tenance and operation.	Days in full com- mission.	Status. ¹	Days out of com- mission.
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including provisions.							
EX-FOREIGN.											
1038	America (ex-German).			\$152.55	\$152.55			\$152.55			92
1066	Astoria (ex-German).			58.80	58.80			1,852.92			92
1063	Bali (D).			94.18	94.18	\$17.50	\$1,794.02	111.08			
1101	Bath (ex-German Andromeda).	\$26,839.11	\$3,662.42	15,956.50	46,478.13	3,314.94	14,359.76	64,152.73			
1102	Batjan (D).			365.60	365.60	70.11		435.71			92
1106	Beaufort (ex-German Rudolph Blumberg).	17,658.53	782.76	13,581.79	32,023.08	4,490.74	51.46	36,565.28			
1108	Pesceki (D).			4,383.00	4,383.00	15.60		4,398.60			92
1126	Bukeldijk (D).			2,671.86	2,671.86	25.23		2,697.09			92
1126	Black Arrow.		208.61		208.61			208.61			92
1165	Brilliant (ex-German Breslau).	136,721.05	5,597.77	52,285.10	214,603.92	17,440.21	2,010.91	231,055.04			92
1156	Buitenzorg (D).		66.99	4,532.12	4,599.11	64.28		4,663.39			
1156	Camden (ex-German).	84,987.10	4,197.56	24,438.72	113,623.34	323.00	1,326.90	115,274.18			
1251	Carp Finisterre (ex-German).			* 262.60	* 262.60	* 2,000.00		* 2,262.60			92
1103	Casco (ex-German Elmshorn).			3,557.01	3,557.01			3,557.01			92
1195	Clebes (ex-D).			8,049.43	8,049.43	67.09		8,116.52			92
1267	De Kalb (ex-German Prince Eitel Frederick).			75.00	75.00	100.83		175.83			92
1290	Drechterland (ex-D).			48.27	48.27	46.08		94.35			92
1315	Eico.			338.50	338.50			338.50			92
1370	Frankfurt.						3,761.34	3,761.34			92
2312	George Washington (ex-German).					300.00		300.00			92
1414	Gerontale (D).			111.81	111.81	4.60		116.41			92
1420	Gulfpot (ex-German Locksrum).	21,591.38	455.92	17,493.75	42,481.05	1,803.22	18.09	44,272.36			
1478	Honiton (ex-German).	32,773.81		13,735.53	46,509.37	2,572.99	925.47	50,007.83			
1589	Kittary (ex-President).	21,962.02	1,252.28	23,396.74	49,544.04	1,750.37	71.23	51,365.64			
1570	Konink der Nederlanden.						23.49	23.49			92
1668	Long Beach (ex-Hohentwielde).			43.80	43.80		1,384.53	1,428.33			92

LIGHT TENDERS.

Mr. KELLEY. The next are the light tenders.

Admiral POTTER. The light tenders are vessels which we took over from the Lighthouse Service during the war; we did not have them before and they have since been turned back.

Mr. KELLEY. Did we have those before the war?

Admiral POTTER. No; we did not do that work at all.

Mr. KELLEY. And they are practically out now?

Mr. REED. They have all been turned back and these are really delayed charges.

Mr. KELLEY. At this point put in the tables, together with a memorandum showing that they have been turned back.

Admiral POTTER. Very well.

No.	Name of vessel.	Title C.				Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.								
LIGHT TENDERS.												
8003	Arbutus.							\$10.95	\$10.95	500	May 9, 1917	
8005	Azalea.							11.05	11.05	429	Apr. 11, 1917	
8006	Columbine.					\$78.55		78.55	78.55			
8008	Camellia.					442.18			442.18			
8011	Cypress.						\$4,523.14		4,523.14	549		
8013	Fern.					2,259.60			2,259.60	237	Sept. 4, 1917	
8014	Gardenia.					543.67			543.67			
8017	Hibiscus.					70.98		13.46	57.52	519		
8024	Juniper.						11,602.40		11,602.40	125	May 10, 1917	
8030	Magnolia.					473.20			473.20			
8034	Marigold.					30.94			30.94	696		
8038	Mistletoe.							55.80	55.80			
8041	Pansy.					214.45			214.45			
8023	Rodgers, John.					\$ 24			\$ 24	455		
8043	Sequoia.					55.98			55.98	809	Dec. 5, 1918	
8046	Sunflower.					402.97	72.00		474.97	728		
8049	Woodbine.					3.69			3.69	85		
	Total.		4,574.06			4,574.06	16,197.54	\$0.34	20,751.26			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.				Days in full commission.	Operating with reduced complements in reserve or ordinary.
LIGHT TENDERS.									
8042	Arbutus.			\$13.44		\$13.44			Days out of commission.
8028	Larkspur.			1.30		1.30			
8030	Magnolia.			1,124.64		1,124.64			
8031	Mangrove.			284.37		284.37			
8033	Maple.			3.22		3.22			
8037	Myrtle.			74.69		74.69			
8046	Sunflower.			13.93	\$7.02	20.95			
	Total.			1,515.59	7.02	1,522.61			

¹ All out of commission 92 days.

All vessels of the Lighthouse Service and Coast Guard taken over by the Navy Department during the war have been returned to their respective departments.

COAST GUARD VESSELS.

Mr. KELLEY. The next are the Coast Guard vessels.

Admiral POTTER. Almost the same thing applies to the Coast Guard vessels.

Mr. KELLEY. Did we have any in 1916?

Admiral POTTER. No, sir. The provision was that those vessels should be turned over to the Navy in time of war. On the 6th of April we took over 17, and then at a later date they were turned back to the Coast Guard.

Mr. KELLEY. And the extra vessels you had were put out of commission?

Mr. REED. We have none of them; there were none in commission, so we noted that they were all turned back.

Mr. KELLEY. They have been turned back to the proper active agency operating them?

Mr. REED. Yes, sir.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

1921.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Ton- nage.	Date of first commission.	Months in com- mission.
		Accrued pay.	Stores issued, including pro- visions and medical stores.							
COAST GUARD.										
8202	Acutshuel		\$4,596.52	\$4,596.52	\$359.73	\$2.50	\$4,596.52	800	Nov. 6, 1904	.....
8205	Apache.		9,013.82	9,013.82			9,376.05	708	July 7, 1917	.....
8207	Arundel		332.71	332.71			332.71	145		.....
8202	Alert.		10,235.31	10,235.31			10,235.31	35		.....
8203	Algonquin.		11,572.94	11,572.94		15,770.94	27,343.92	1,181	Sept. 18, 1904	.....
8204	Androscoegin.		16,623.57	16,623.57	447.53	836.05	17,907.15	1,605	July 8, 1904	.....
8208	Bear.		5,786.76	5,786.76			5,786.76	1,700	May 15, 1917	.....
8209	Calumet.				62.00		62.00		Dec. 7, 1917	.....
8210	Caswell, Richard		2,782.01	2,782.01			2,782.01	200	Oct. 8, 1917	.....
8212	Comanche.		4,869.24	4,869.24			4,869.24	670	Apr. 11, 1917	.....
8213	Davey.		669.15	669.15	211.12		880.27	182	Aug. 6, 1904	.....
8215	Golden Gate.		158.69	158.69			158.69			.....
8216	Gresham		21,196.25	21,196.25	5,055.14		26,251.39	1,090	May 30, 1907	.....
8217	Guard.		1.35	1.35			1.35			.....
8218	Guide.		2,065.84	2,065.84	4.34		2,065.84	145		.....
8219	Guthrie.		716.63	716.63			720.97			.....
8220	Hartley.		14.66	14.66			14.66			.....
8221	Hudson.		5,621.38	5,621.38			5,621.38	179	Aug. 2, 1918	.....
8222	Itasca.		15,735.97	15,735.97	144.37	2.21	15,882.55	980	Mar. 3, 1903	.....
8223	MacInnac.		95.54	95.54	45.52		141.06	241		.....
8225	Manhattan.		1,036.74	1,036.74			1,036.74	379		.....
8226	Manning.		34,996.64	34,996.64	10.12	23,968.75	58,566.41	1,155		.....
8228	Mohawk.		3,575.93	3,575.93	950.97		4,526.90	420		.....
8229	Morrill.		5,851.70	5,851.70	133.74		5,985.44	1,192		.....
8230	Onondaga.		1,197.94	1,197.94	121.11		1,319.05			.....
8231	Ossipee.		16,266.71	16,266.71		5,968.57	24,257.28	908	July 26, 1907	.....
8232	Pamlico.		2,324.20	2,324.20	512.84		2,837.04	451	Apr. 10, 1917	.....
8234	Pease.		196.65	196.65			196.65			.....
1334	Ross, Emma Kate.		21.32	21.32			21.32	350		.....
8236	Seminole.		5,653.26	5,653.26	1,194.50		6,849.76	890		.....
8237	Seneca.		26,909.74	26,909.74	335.49	11,930.99	42,203.16	1,445		.....
8238	Shoshoniah.	\$26.54	12,912.86	12,912.86	121.11		13,033.97	879		.....
8239	Tallapoosa.		1,191.70	1,191.70	331.57		1,513.27	912	Aug. 12, 1915	.....
8240	Tampa.		19,965.27	19,965.27	432.49	110.71	20,508.47	131		.....
8241	Tugs.		1,936.76	1,936.76	6.45		1,943.21			.....
8242	Tumblers.		5,573.99	5,573.99	101.64	14,067.36	20,063.00	739	Dec. 27, 1902	.....

Total.....	34.10	292,715.96	292,750.06	11,438.45	74,378.21	378,564.72				
1922.										
[First quarter.]										
No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
COAST GUARD.										
8205	Apache.....			\$1.65	\$1.65			\$1.65		
8203	Algonquin.....			23.59	23.59	\$3,634.28		3,634.28		
8204	Andrescoggin.....			831.30	831.30			23.59		
8212	Comanche.....			6.46	6.46			831.30		
8216	Gresham.....			6.52	6.52			6.46		
8221	Hudson.....			24.16	24.16			6.52		
8223	Mackinac.....						\$1,650.64	24.16		
8225	Manhattan.....					25.00		1,650.64		
8226	Manning.....			303.82	303.82			25.00		
8228	Mohawk.....			225.00	225.00			303.82		
8236	Seminole.....			146.69	146.69			225.00		
8237	Seneca.....	\$5.40			5.40			10,385.99		
8238	Snohomish.....		\$234.46		234.46			5.40		
8239	Tallapoosa.....			31.84	31.84			7,772.12		
8242	Tuscarora.....			1,861.17	1,861.17			5.40		
8244	Unalga.....			7.70	7.70			37.24		
8247	Yamacraw.....					7,711.10		1,861.17		
	Total.....	5.40	234.46	3,469.90	3,709.76	11,370.38	19,667.46	7,718.80		
								34,747.60		

¹ All out of commission 92 days.

COAST AND GEODETIC SURVEY AND BUREAU OF FISHERIES VESSELS.

Admiral POTTER. The same thing is true as to the vessels of the Coast and Geodetic Survey.

Mr. KELLEY. And the same thing is true of the vessels of the Fish Commission?

Admiral POTTER. No; we keep those for scientific purposes.

Mr. KELLEY. How much did they cost us in 1916?

Admiral POTTER. In 1916 they cost \$113,000.

Mr. FRENCH. When you are operating vessels for other bureaus or departments against what department is the expense charged?

Mr. REED. It is charged against the Navy under an old law which requires us to man and operate vessels for the Fish Commission.

Admiral POTTER. One on each coast; they have a scientist or two on board, but the officers and men are Navy personnel.

Mr. BYRNES. How long have you been doing that?

Admiral POTTER. For about 40 years.

Mr. FRENCH. Is that the only bureau for which you are operating vessels?

Admiral POTTER. Yes, sir.

Mr. FRENCH. How much is that particular item?

Mr. REED. In 1921 it cost \$175,860.99.

Mr. FRENCH. As a matter of fact, then, that is an item which is properly chargeable against the Department of Commerce rather than against the Navy Department?

Admiral POTTER. I think it is in a way; if it were not for the law it would be equitable to make a transfer of appropriations to cover it each year.

Mr. KELLEY. How much was the amount for the first three months?

Admiral POTTER. \$38,442.50.

Mr. OLIVER. Is that service maintained solely for the Bureau of Fisheries or does it incidentally serve naval purposes also?

Admiral POTTER. I do not think that it serves naval purposes.

Mr. OLIVER. Following the line of inquiry suggested by Mr. French, you have a system whereby you carry freight on naval vessels for other bureaus; that is, when you have room on naval vessels you carry their freight?

Admiral POTTER. We do it for the Army.

Mr. OLIVER. But you do it for some of the other departments, do you not?

Admiral POTTER. We have done it for the Department of Commerce.

Mr. OLIVER. In carrying supplies to Alaska?

Admiral POTTER. Yes, sir.

Mr. FRENCH. One thing I had in mind in that connection was this: In the Interior Department bill, in the Bureau of Mines, we came across some expenditures last year that were charged to the Interior Department for the benefit of the Navy in connection with your oil reserves and development work in California, and it struck the members of that subcommittee that whatever money was expended for your purposes ought to be authorized in this bill rather than in the Interior Department bill and ought to be charged to you instead of to the Interior Department. Now, we have the same situation,

except it is reversed, and it seems to me here is an item that ought to be charged against the Department of Commerce instead of to you. Of course, I do not object to your doing the work, but it is merely a matter of where it should be charged.

Mr. BYRNES. We provided for that, too.

Mr. FRENCH. Yes; in the Interior Department bill we left it out entirely; we left the authority with the Bureau of Mines to do your work, but gave them no money with which to do it, so that in making appropriations for your work you will have to take that into consideration and the committee will need to appropriate such amount as may be necessary for your oil work, but your department, from time to time, transferring the money to the Bureau of Mines.

Mr. BYRNES. If there is no estimate for it the Navy Department ought to make an estimate for the money necessary to do that work.

Mr. FRENCH. Yes; that will have to be done.

Mr. KELLEY. As I understand it, all of the light vessels have been turned back?

Admiral POTTER. Yes, sir; only \$2.87 was expended in the first quarter of 1922.

1921.

No.	Name of vessel.	Title C.					Repairs and alterations to ships, including equipage.	Equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.	Total operating expenses.							
COAST AND GEODETIC SURVEY.												
8240	Bache.....			\$1,157.94	\$1,157.94			\$3,188.08	\$4,356.02	472	Sept. 24, 1917	
8244	Explorer.....			21.98	21.98				21.98	450	June 3, 1918	
8255	Hydrographer.....			2.95	2.95			2.56		146		
8251	Isis.....			1,559.11	1,559.11			650.52	2,209.63	519	Oct. 4, 1917	
8254	Surveyor.....			1,691.77	1,691.77			2,002.39	3,906.17	1,143	Oct. 22, 1917	
	Total.....			4,433.75	4,433.75		152.01	5,808.04	10,493.80			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.		Days out of commission.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.					Days in full commission.	Operating with reduced complements in reserve or ordinary.		
COAST AND GEODETIC SURVEY.												
8214	Explorer.....			\$128.00	\$128.00			\$128.00			92	
8251	Isis.....			245.87	245.87			245.87			92	
8254	Surveyor.....			86.31	86.31			86.31			92	
	Total.....			460.18	460.18			460.18			.....

No.	Name of vessel.	Accrued pay.	Miscellaneous expense, including commuted rations, medical stores.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
BUREAU OF FISHERIES.										
8252	Albatross.....	\$106,194.26	\$222.75	\$20,147.66	\$194.01	\$5.28	\$126,763.96		Nov. 19, 1917	
8253	Fish Hawk.....	36,563.46		12,207.22	300.00	542.78	49,013.46		May 12, 1917	
1913	Phalarope.....			83.57			83.57	55	Dec. 6, 1917	
	Total.....	142,757.72	222.75	32,438.45	106.89	548.06	175,860.99			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Days in full commission.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.							
BUREAU OF FISHERIES.											
8252	Albatross.....	\$22,996.30	.....	\$3,908.47	\$26,904.77	\$190.77	.....	\$27,095.54	.....	92
8253	Fish Hawk.....	8,761.06	.....	2,585.90	11,346.96	.....	.....	11,346.96	.....	92
	Total.....	31,757.36	.....	6,494.37	38,251.73	190.77	.....	38,442.50	.....	.....

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
LIGHT VESSELS.											
8263	Light vessel No. 3.			\$1.30	\$1.30		\$450.04	\$450.04			
8265	Light vessel No. 5.				24.99		1.30	1.30			
8273	Light vessel No. 13.	\$24.99			24.99						
8276	Light vessel No. 16.			4,307.63	4,307.63			4,307.63			
8304	Light vessel No. 44.						43.37	43.37			
8306	Light vessel No. 46.						465.96	465.96			
8308	Light vessel No. 48.			49.35	49.35			49.35			
8309	Light vessel No. 49.			106.78	106.78			106.78			
8311	Light vessel No. 51.			345.85	345.85		79.45	425.30			
8312	Light vessel No. 52.		294.68		294.68			294.68			
8314	Light vessel No. 54.			1.30	1.30			1.30			
8315	Light vessel No. 55.						15.67	15.67			
8326	Light vessel No. 66.			2.45	2.45			2.45			
8328	Light vessel No. 68.			10.27	10.27			10.27			
8329	Light vessel No. 69.			663.41	663.41			1,152.87			
8330	Light vessel No. 70.			652.15	652.15			1,152.87			
8332	Light vessel No. 72.			83.67	83.67			421.61			
8336	Light vessel No. 76.		337.94		337.94		1,421.53	1,506.58			
8340	Light vessel No. 80.			85.05	85.05			4.25			
8343	Light vessel No. 83.			4.25	4.25			4.25			
8347	Light vessel No. 87.			2,770.86	2,770.86		235.80	235.80			
8348	Light vessel No. 88.						2,770.86	2,770.86			
8351	Light vessel No. 91.			13.27	13.27			13.27			
8352	Light vessel No. 92.			55.63	55.63			55.63			
8353	Light vessel No. 93.			333.21	333.21		11.04	11.04			
8354	Light vessel No. 94.						876.05	876.05			
8361	Light vessel No. 101.		4.18		4.18		211.09	211.09			
	Total.	661.79		8,507.76	9,169.55		9,687.33	18,856.88			

MISCELLANEOUS VESSELS.

Mr. KELLEY. Then we have a miscellaneous list. Did we have a miscellaneous list in 1916?

Admiral POTTER. Yes; we had a considerable list. But it was practically limited to receiving ships and yard craft.

Mr. KELLEY. How much was it in 1916?

Admiral POTTER. \$4,414,667.76.

Mr. KELLEY. And in 1921?

Admiral POTTER. \$25,470,160.90, and for the first quarter of 1922, \$4,459,463.34.

Mr. KELLEY. At this point put in the tables.

Admiral POTTER. Very well.

No.	Name of vessel.	Accrued pay.	Public vouchers (including commuted rations).	Stores issued (including pro- visions and medical stores).	Total operat- ing expenses.	Repairs and alterations to ships, includ- ing equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	sion.	
										Full com- mission.	Commis- sion in reserve.
MISCELLANEOUS.											
980	Receiving ship at Ports- mouth.	\$10,658.95	\$168.95		\$10,827.90		\$10,827.90				
981	Receiving ship at Boston.	419,192.99	29,338.39	\$28,712.98	475,244.36	\$105.70	475,350.06				
982	Receiving ship at Newport.	65,647.75	3,951.45	10,519.52	80,118.72		80,118.72				
983	Receiving ship at New York.	844,117.16	36,258.52	73,991.71	953,967.39	511.05	954,478.44				
984	Receiving ship at Philadel- phia.	397,198.00	17,904.93	38,580.03	453,668.96		453,714.17				
985	Receiving ship at Norfolk.	836,914.29	23,804.41	235,712.74	1,096,431.44	45.21	1,096,476.65				
986	Receiving ship at Charleston	25,259.43	8,585.24	225.46	34,070.13	23.75	34,093.88				
987	Receiving ship at Mare Island.			331.62	331.62	5.00	336.62				
988	Receiving ship at San Fran- cisco.	247,857.32	1,660.22	166,415.09	415,932.63	335.05	416,267.68				
989	Receiving ship at Puget Sound.	173,610.40	9,518.12	31,807.81	214,936.33	1,387.71	216,124.04				
990	Receiving ship at Cavite.	28,967.44	237.79	1,242.87	29,448.10		29,478.10				
991	Receiving ship at Olongapo.	10,177.49	525.80	3,666.73	14,310.12	70.87	14,380.99				
992	Reserve torpedo division, Annapolis.	32,317.40	22.50	6,558.23	38,898.13	5.25	38,903.38				
993	Reserve torpedo division, Charleston.	3,785.24	49.50	3,399.24	7,233.98		7,233.98				
994	Yard craft.	81,122.30	12,483.78	32,970.07	126,576.15	49,043.49	175,619.64				
995	Ships, Naval Academy.	172,871.41	1,644.76	31,017.27	205,533.44		205,533.44				
996	Seamen's quarters, Wash- ington.	49,759.85	439.09	3,928.62	54,127.56	5.62	54,133.18				
997	Target rafts.					99,043.36	99,043.36				
998	Airships.		5,874.57		5,874.57	57,722.17	63,596.74				
	Total.	3,397,475.42	152,468.12	666,419.99	4,216,363.53	198,304.23	4,414,667.76				
Equipage.											
	Total.						1,103,668.94				
	Total.						5,518,334.70				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
MISCELLANEOUS.											
1001	A-1 (house-boat).							\$2.10			
1021	Albacore.							213.30			
1034	Alsen.	\$5.50			\$5.50			5.50			
1059	Arthur and Eddie.					\$4.00		4.00			
1088	Athens.							117.02			
1076	Avoca.							95			
1090	Berry.		.50	\$3.41	3.41			4.36			
3560	Boston.							.50			
1146	Blackburn, Thomas.		89.21	42,211.74	42,211.74	6,407.64	637.60	49,256.98			
1398	Burton, George.		3.10	189.26	192.36			94.67			
1177	Conoga.			57.75	57.75			192.36			
1212	Choctaw.							57.75			
1430	Clark, George.			32.05	32.05			138.98			
1548	Clay, John.			91.96	91.96			89,526.51			
1220	Clifton.					48.33		91.96			
1431	Cochran, George.			20.35	20.35			11.25			
1549	Collins, John.			86.43	86.43			67.30			
7607	Commerce.			6,501.20	6,501.20	245.78		86.43			
1224	Cokeakit.			23	23			257.49			
8893	Crane ship No. 1 (ex-Kearse)			2,506.80	2,506.80			6,840.09			
8897	Crawley, Gene.	3,670.51		3,670.51	3,670.51	62.49		819,318.45			
1244	Crescent.	762.00			762.00			3,670.51			
1248	Curacao.			216.48	216.48			762.00			
2415	Darnold, William.			15.66	15.66			394.61			
1271	Derry.		.80		.80			15.66			
1276	Dohrn, Anton.					9.15		80			
1267	Dorothy E. Price.		5.50		5.50			9.15			
1260	Duncan, John.			12.62	12.62			5.50			
1310	Edgehill.					12.58		12.62			
1311	Edgemont.					12.58		12.58			
7609	Empress.			21.00	21.00			33.58			
9900	East Wind.			10,281.52	10,281.52			10,364.99			
								40.00			
								967.17			
								916.17			

Year	Person	1891-94	1895-98	1899-1902	1903-1906	1907-1910	1911-1914	1915-1918	1919-1922	1923-1926	1927-1930	1931-1934	1935-1938	1939-1942	1943-1946	1947-1950	1951-1954	1955-1958	1959-1962	1963-1966	1967-1970	1971-1974	1975-1978	1979-1982	1983-1986	1987-1990	1991-1994	1995-1998	1999-2002	2003-2006	2007-2010	2011-2014	2015-2018	2019-2022	2023-2026	2027-2030	2031-2034	2035-2038	2039-2042	2043-2046	2047-2050	2051-2054	2055-2058	2059-2062	2063-2066	2067-2070	2071-2074	2075-2078	2079-2082	2083-2086	2087-2090	2091-2094	2095-2098	2099-2102	2103-2106	2107-2110	2111-2114	2115-2118	2119-2122	2123-2126	2127-2130	2131-2134	2135-2138	2139-2142	2143-2146	2147-2150	2151-2154	2155-2158	2159-2162	2163-2166	2167-2170	2171-2174	2175-2178	2179-2182	2183-2186	2187-2190	2191-2194	2195-2198	2199-2202	2203-2206	2207-2210	2211-2214	2215-2218	2219-2222	2223-2226	2227-2230	2231-2234	2235-2238	2239-2242	2243-2246	2247-2250	2251-2254	2255-2258	2259-2262	2263-2266	2267-2270	2271-2274	2275-2278	2279-2282	2283-2286	2287-2290	2291-2294	2295-2298	2299-2302	2303-2306	2307-2310	2311-2314	2315-2318	2319-2322	2323-2326	2327-2330	2331-2334	2335-2338	2339-2342	2343-2346	2347-2350	2351-2354	2355-2358	2359-2362	2363-2366	2367-2370	2371-2374	2375-2378	2379-2382	2383-2386	2387-2390	2391-2394	2395-2398	2399-2402	2403-2406	2407-2410	2411-2414	2415-2418	2419-2422	2423-2426	2427-2430	2431-2434	2435-2438	2439-2442	2443-2446	2447-2450	2451-2454	2455-2458	2459-2462	2463-2466	2467-2470	2471-2474	2475-2478	2479-2482	2483-2486	2487-2490	2491-2494	2495-2498	2499-2502	2503-2506	2507-2510	2511-2514	2515-2518	2519-2522	2523-2526	2527-2530	2531-2534	2535-2538	2539-2542	2543-2546	2547-2550	2551-2554	2555-2558	2559-2562	2563-2566	2567-2570	2571-2574	2575-2578	2579-2582	2583-2586	2587-2590	2591-2594	2595-2598	2599-2602	2603-2606	2607-2610	2611-2614	2615-2618	2619-2622	2623-2626	2627-2630	2631-2634	2635-2638	2639-2642	2643-2646	2647-2650	2651-2654	2655-2658	2659-2662	2663-2666	2667-2670	2671-2674	2675-2678	2679-2682	2683-2686	2687-2690	2691-2694	2695-2698	2699-2702	2703-2706	2707-2710	2711-2714	2715-2718	2719-2722	2723-2726	2727-2730	2731-2734	2735-2738	2739-2742	2743-2746	2747-2750	2751-2754	2755-2758	2759-2762	2763-2766	2767-2770	2771-2774	2775-2778	2779-2782	2783-2786	2787-2790	2791-2794	2795-2798	2799-2802	2803-2806	2807-2810	2811-2814	2815-2818	2819-2822	2823-2826	2827-2830	2831-2834	2835-2838	2839-2842	2843-2846	2847-2850	2851-2854	2855-2858	2859-2862	2863-2866	2867-2870	2871-2874	2875-2878	2879-2882	2883-2886	2887-2890	2891-2894	2895-2898	2899-2902	2903-2906	2907-2910	2911-2914	2915-2918	2919-2922	2923-2926	2927-2930	2931-2934	2935-2938	2939-2942	2943-2946	2947-2950	2951-2954	2955-2958	2959-2962	2963-2966	2967-2970	2971-2974	2975-2978	2979-2982	2983-2986	2987-2990	2991-2994	2995-2998	2999-3002	3003-3006	3007-3010	3011-3014	3015-3018	3019-3022	3023-3026	3027-3030	3031-3034	3035-3038	3039-3042	3043-3046	3047-3050	3051-3054	305
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1922—Continued.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions and medical stores.							
MISCELLANEOUS—continued.											
2214	Thomas Graham.		\$15.09		\$15.09			\$15.09			
2232	Titan.			\$1.52	1.52			1.52			
8810	Torpedo testing barge No. 3.			12,700.59	47,452.55	\$30,708.98	\$1,828.70	779,988.23			
8813	Torpedo testing barge No. 4.			9,386.80	9,483.36	240.00		9,723.36			
2257	Tucker, J. N.		96.56				70.72	70.72			
2310	Wanda.			339.50	339.50			339.50			
7044	Water barge No. 30.			2,410.91	2,410.91			2,410.91			
8838	Weehawken.						8,587.24	8,587.24			
2413	Whittemore, Charles.			20.00	20.00			20.00			
2414	William Ashton.		39.05	56.58	95.63			95.63			
2416	William Caldwell.			21.41	21.41			21.41			
2417	William Johnson.			25.61	25.61			25.61			
2412	Wyandotte.			2.64	2.64			2.64			
8815	Submarine repair division, Philadelphia.	43,129.08		35,920.35	79,049.43	14.00		79,063.43			
8819	Naval forces in Eastern waters.	20,177.62	21,438.65	1,118.21	42,734.48	1,356.57	29.91	44,120.96			
8970	Destroyer Division No. 20.		142.46		142.46			142.46			
8971	Destroyer Division No. 12.		83.52	34.06	118.18			118.18			
8974	Destroyer Division No. 22.		75.48		75.48			75.48			
8978	Destroyer Division No. 29.		8.00		8.00			8.00			
8938	Seamen's quarters, Washington, D. C.										
8955	Receiving ship, Halifax, Nova Scotia.		84.32	69,898.78	69,983.10			69,983.10			
8960	Receiving ship, Olongapo.			1,800.39	1,800.39			1,800.39			
8963	Submarine base, Asiatic Fleet, Cavite, P. I.		69.85	36.82	106.67			106.67			
8966	Receiving ship, Hampton Roads.	6,816.36		11,713.29	18,529.65	20,545.05	5,746.72	44,822.02			
8925	Receiving ship, Norfolk.	593,568.61	7,596.47	35,044.76	636,150.84	908,184.00	5.24	1,542,340.68			
8926	Receiving ship, Charleston.		1,597.41	14.00	1,611.41		12.92	1,624.33			
8928	Receiving ship, Puget Sound.	350,226.67	14,096.10	71,393.29	435,655.12	4,196.24	104.17	440,015.53			
8929	Receiving ship, Cavite.	503,726.99	9,001.59	68,931.30	581,689.88		2,008.01	583,697.89			
8930	Receiving ship, Cavite.	325,853.50	10,973.44	95,893.42	432,720.36	4,644.29	1,303.15	438,667.80			
8936	Yard craft, Mare Island.	12,717.91	4,404.94	17,182.75	27,182.75	483.00	5,578.97	23,245.72			
8937	Ships, Naval Academy.	121,335.00		149,740.53	271,075.13	120,740.91	6,503.85	404,357.42			
8940	Receiving ship, Newport.		27.42		27.42			27.42			
8941	Receiving ship, Key West.			118,000.00	118,000.00			118,000.00			
8942	Receiving ship, New Orleans.		34,000.30	37,347.53	400,802.19	1,686.36	976.91	402,505.46			

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1922.

[First quarter.]

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Days in full commission.	Status. ¹
		Accrued pay.	Miscellaneous expense, including commuted rations.							Stores issued, including provisions.
MISCELLANEOUS.									
3560	Boston			\$10,285.52	\$660.91	\$392.43	\$11,357.86		
8893	Crane No. 1 (ex-Kearsarge)					395,206.81	395,206.81		
8896	Malama	\$17,979.34		28,920.36	2,896.74	6,137.56	36,004.06		
8892	Nitro	59,378.94	86.24	131,333.73	18,714.74	3,230.19	197,458.32	77	15
8891	Pyro	63,395.71	2,085.53	104,166.37	26.57		107,426.32	92	
7918	Sullivan, Lawrence N.			1,982.30	134.18		2,116.48	92	
8890	Torpedo testing barge No. 3	15,901.97		19,815.65	980.41	1,815.46	22,692.52		
8813	Torpedo testing barge No. 4		569.50	3,913.68			8,983.16		
7950	Water barge No. 30	7,265.97		10,308.42			17,574.39		
7951	Water barge No. 31	7,265.97		282.80	65.62	1,524.64	11,833.06		
7944	Weehawken		4,720.46			1,759.87	1,759.87		
8969	Naval forces, eastern waters.	766.95		5,487.81	185.00	1,759.87	5,819.75		
8893	Submarine base, Asiatic.			9.05	36.46	595.60	641.20		
8966	Receiving ship Hampton Roads	210,136.77		211,623.72	64.23	19.32	211,807.27		
8925	Receiving ship Norfolk		941.98	841.98		4.36	211,807.27		
8926	Receiving ship Charleston	107,330.53	1,929.41	125,245.93	158.99	10.00	125,412.92		
8928	Receiving ship Puget Sound	69,106.23	1,583.11	79,391.82		68.34	79,460.16		
8929	Receiving ship Cavite	99,436.21	1.04	135,715.36			135,721.02		
8936	Yard craft, Mare Island	1,004.57		1,014.66	532.50	212.52	1,759.68		
8937	Ship, Naval Academy			13,032.18	2,739.96	1,205.23	16,967.37		
8940	Receiving ship Newport				40.44		40.44		
8941	Receiving ship Key West	44,201.03	1,581.50	50,000.44			50,000.44		
8945	Receiving ship New Orleans	93,468.10	21,309.00	132,980.73	12.00		132,992.73		
8946	Armed draft detail, Norfolk		289.16	289.16			289.16		
8946	Receiving ship Pensacola			28,528.35			28,528.35		
8947	Receiving ship Washington	228,431.71	639.26	229,377.79	17,191.00	213.92	246,732.71		
8948	Receiving ship Pearl Harbor	57,790.20	44.52	57,834.72	99.32		58,812.30		
8949	Receiving ship Guantanamo	51,510.73	878.26	57,507.54	25.12		57,532.66		

8998	Submarine base, Pearl Harbor.	20,220.83	3,902.01	20,220.83	3,902.01	20,220.83	3,902.01
8979	Yard craft, navy yard, Norfolk.	3,902.01	46,537.14	3,902.01	46,537.14	3,902.01	46,537.14
8921	Receiving ship at Portsmouth.	131.74	219,772.50	131.74	219,772.50	131.74	219,772.50
8922	Receiving ship at Boston.	40,326.92	515,109.31	40,326.92	515,109.31	40,326.92	515,109.31
8923	Receiving ship at New York.	84,647.77	468,730.45	84,647.77	468,730.45	84,647.77	468,730.45
8924	Receiving ship at Philadelphia.	59,379.82	2,615.28	59,379.82	2,615.28	59,379.82	2,615.28
8996	Commissary stores.	149.25	148,488.86	149.25	148,488.86	149.25	148,488.86
8967	Atlantic Fleet air force.	27,786.79	19,722.48	27,786.79	19,722.48	27,786.79	19,722.48
8901	Pacific Fleet air force.	80,226.64	3,956.30	80,226.64	3,956.30	80,226.64	3,956.30
8908	Submarine Division No. 5.	3,956.30	3,956.30	3,956.30	3,956.30	3,956.30	3,956.30
8900	Submarine base, Coco Solo.	14,335.10	36,243.01	14,335.10	36,243.01	14,335.10	36,243.01
8993	Yard enlisted force, pay office, Boston.	94,118.72	21,907.91	94,118.72	21,907.91	94,118.72	21,907.91
8998	Atlantic Fleet and torpedo plane squadron.	396.60	4,093.01	396.60	4,093.01	396.60	4,093.01
	Total.	2,949,033.50	796,654.79	2,949,033.50	796,654.79	2,949,033.50	796,654.79
		172,156.37	3,907,847.66	172,156.37	3,907,847.66	172,156.37	3,907,847.66
		416,272.31	135,343.37	416,272.31	135,343.37	416,272.31	135,343.37
		4,083.01	4,499,463.34	4,083.01	4,499,463.34	4,083.01	4,499,463.34

: Credit.

: All miscellaneous out of commission 92 days unless otherwise shown.

RECEIVING SHIPS.

Mr. KELLEY. I would like to know a little something about these receiving ships. Take the one at New York; last year it amounted to \$5,147,607.19. Just how does that operate?

Admiral POTTER. You will notice that the great item is accrued pay of the men who pass through. There is a building, a receiving barracks, and the men are brought in from other stations or are locally enlisted. They are fitted out and given some instruction, and all of their pay is carried there at that time; they are given some discipline and drill until the ship to which they are assigned arrives, when they are put on it. There is actually a building there, and then there is always one ship there which is regarded as the station ship. But there is actually a building there and there are administrative offices which relate to the assembling and receiving of the enlisted men and also the officers who pour in there to be distributed to the ships of the fleet. Similarly, when they come back for discharge, the men are often put in there, if they are to be discharged on a given date, for a week or a month, or if their ship is to sail they will be detached from the ship for physical convenience and in order to save money; when a ship is going to a foreign station they will be taken off and put there, and their pay is all carried as if it were a receiving ship.

Mr. OLIVER. You are also authorized to advance their discharge under those conditions?

Admiral POTTER. Yes, sir.

Mr. OLIVER. In order to save money?

Admiral POTTER. Yes, sir; within three months, I think it is.

Mr. KELLEY. Then the bulk of this is for the pay of the enlisted men and officers who are awaiting either to be discharged or to go on board a ship?

Admiral POTTER. Yes, sir.

Mr. KELLEY. As they pass through there?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Is this the largest distributing place you have?

Admiral POTTER. Hampton Roads is next, but it is much smaller, \$1,542,340.68, of which the accrued pay was nearly \$600,000.

Mr. KELLEY. One would naturally think that Hampton Roads would have more boys like that than New York. Does the naval district business increase this in any way?

Admiral POTTER. We have the naval district separately.

Mr. KELLEY. But it does not increase this?

Admiral POTTER. No, sir; I do not see how it could. Admiral Coontz can tell you about that better than I can, but I do not see how it could.

Mr. KELLEY. In 1921 at Mare Island it amounted to \$2,359,849.43.

Admiral POTTER. Yes; of which \$1,706,000 was for accrued pay. For stores issued, which was mostly the rations, it was \$612,000.

Mr. KELLEY. To accompany this statement could you put in a statement which would segregate the expenses of the receiving ship from the total?

Admiral POTTER. Yes, sir.

Mr. KELLEY. So we will know what part of the \$25,470,000 in 1922 was for receiving ships and what part for miscellaneous craft.

Admiral POTTER. Yes, sir.

Mr. KELLEY. And do the same thing for each year?

Admiral POTTER. Yes, sir.

No.	Name of vessel.	Title C.		Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status.	
		Accrued pay.	Miscellaneous expense, including commuted rations.					Days in full commission.	Operating with reduced complements in reserve or ordinary.
	RECEIVING SHIPS.								
	Receiving ship at—								
	Portsmouth.....	\$10,658.95	\$168.95	\$10,827.90			\$10,827.90		
	Boston.....	419,192.99	29,338.39	475,244.36		\$105.70	475,350.06		
	Newport.....	65,647.75	3,951.45	80,118.72			80,118.72		
	New York.....	844,117.16	36,258.52	953,967.39		511.05	954,478.44		
	Philadelphia.....	397,196.00	17,904.93	453,670.96		45.21	453,716.17		
	Norfolk.....	836,914.29	23,804.41	1,096,431.44		23.75	1,096,455.19		
	Charleston.....	25,259.43	8,585.24	34,070.13		5.00	34,075.13		
	Mare Island.....			331.62			331.62		
	San Francisco, Calif.....	247,857.32	1,660.22	415,932.63		335.05	416,267.68		
	Puget Sound.....	173,610.40	9,518.12	214,736.33		1,387.71	216,124.04		
	Cavite.....	26,997.44	237.79	28,478.10			28,478.10		
	Olongapo.....	10,177.49	525.90	14,310.12		70.87	14,380.99		
	Total.....	3,057,619.22	131,953.92	3,778,119.70		2,484.34	3,780,604.04		

1921.

No.	Name of vessel.	Title C.		Stores issued, including provisions.	Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status		
		Accrued pay.	Miscellaneous expense, including committed rations.						Days in full commission.	Operating with reduced complements in reserve or ordinary.	
RECEIVING SHIPS.											
Receiving ship at—											
	Portsmouth.	\$169,836.90	\$474.27	\$949.15	\$170,950.32	\$1,975.37	\$139.85	\$170,950.32			
	Boston.	438,739.95	2,786.04	140,757.85	582,283.84			584,399.06			
	Newport.		27.42		27.42						
	New York.	4,452,221.44	48,366.02	619,473.60	5,120,664.06	20,962.50	6,040.63	5,147,607.19			
	Philadelphia.	1,371,677.67	3,897.83	439,671.38	1,835,216.88	1,579.59	689.50	1,837,485.97			
	Washington.	621,665.53	29,365.62	1,531.26	652,582.41	30,791.72	43.62	683,417.75			
	Norfolk.		1,597.41	111.40	1,711.40						
	Hampton Roads.	533,509.61	7,596.47	35,043.76	636,155.84	1,443.40	5.24	637,599.48			
	Charleston.	350,225.67	14,036.16	71,983.20	435,655.12	4,186.24	164.17	440,015.53			
	Key West.	88,530.36	71,383.78	29,633.78	118,649.44	1,685.40		120,334.84			
	New Orleans.	34,006.20	29,633.78	57,347.63	436,865.73	1,989.25		439,804.80			
	Great Lakes.	1,305,248.67	37,940.20		1,343,189.07		979.91	1,343,189.07			
	San Francisco.	1,497,471.42	49,208.03	218,132.02	1,764,811.47	13,162.40	4,845.65	1,782,819.52			
	Marine Island.	1,708,494.76	13,511.86	612,648.06	2,332,674.08	23,800.97	3,373.78	2,359,949.43			
	Puget Sound.	503,726.99	9,001.59	68,961.30	581,689.88		2,008.01	583,697.89			
	Pearl Harbor.	159,737.33	71.35	2,610.22	162,418.90	455.03		162,873.93			
	Cavite.	10,973.44		95,883.42	432,720.36	4,644.29	1,303.15	438,667.80			
	Hongkong.		69.85	39.82	106.67			106.67			
	Haifax.				1,800.39			1,800.39			
	Guantanamo.	210,688.46	110.86	37,218.50	248,023.82	934.86		248,968.18			
	Coco Solo.	26,718.21			26,718.21			26,718.21			
	Total.	14,166,898.57	203,404.92	2,452,857.43	16,883,250.92	107,561.02	20,206.43	17,011,018.37			

No.	Name of vessel.	Title C.			Total operat- ing expenses.	Equipage.	Repairs and alterations to ships, includ- ing equipage.	Total main- tenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, in- cluding com- muted rations.	Stores issued, including provisions.					Days in full com- mission.	Operating with re- duced com- plements in reserve or ordinary.
	Receiving ship at—									
	Portsmouth.....	\$46,236.40	\$169.00	\$131.74	\$46,537.14	\$23.20		\$46,560.34		
	Boston.....	177,616.32	1,826.26	40,326.92	219,772.50	905.96		220,678.36		
	New port.....					149.44		149.44		
	New York.....	427,866.76	2,604.78	94,647.77	515,109.31	2,780.16	\$546.50	518,435.97		
	Philadelphia.....	409,201.38	148.25	56,379.82	468,730.45	320.78	75.00	469,126.23		
	Washington.....	228,431.71	628.28	266.80	229,327.79	17,191.00	213.92	246,732.71		
	Norfolk.....		841.98		841.98		4.56	846.54		
	Hampton Roads.....	210,136.77		1,386.95	211,523.72	64.23	19.32	211,607.27		
	Charleston.....	107,330.53	1,929.41	15,953.99	125,213.93	158.99	10.00	125,412.92		
	Key West.....	44,291.03	1,581.50	4,127.91	50,000.44			50,000.44		
	Pensacola.....			28,528.35	28,528.35			28,528.35		
	New Orleans.....	93,468.10	21,309.00	18,153.63	132,930.73	12.00		132,942.73		
	San Francisco.....	285,794.97	4,515.50	47,500.29	337,810.76	42,298.97	2,223.94	382,336.67		
	Mare Island.....	276,046.70	3,604.34	82,662.72	362,313.76	62.32	82.20	363,068.28		
	Puget Sound.....	69,108.23	1,563.11	8,702.46	79,373.82		63.34	79,460.16		
	Pearl Harbor.....	57,790.20	878.26		58,668.46	99.32		58,812.30		
	Cavite.....	99,435.21	1.94	36,278.23	135,715.38	3.64		135,721.02		
	Guantanamo.....			5,996.81	57,607.54	25.12		57,632.66		
	Coco Solo.....	51,510.73		1,282.44	52,793.17			52,793.17		
	Total.....	2,594,573.04	41,623.61	435,464.37	3,071,661.02	63,898.15	3,256.78	3,139,115.95		

¹ Credit.

Mr. KELLEY. This item shows that in 1921, \$1,763,239.98 was for repairs and alterations to ships. Could you tell us whether the word "ships" is used to include barracks?

Admiral POTTER. It is not.

Mr. KELLEY. It might be of value to know what part would be for the ships, because it seems to me as though that is a large amount to put upon any actual ship.

Admiral POTTER. Much of it is evidently for ship charges direct. For instance, the *Nennette* had repairs and equipage issues of \$227,000, and then the *Pyro* had \$95,000.

Mr. KELLEY. Much of that does not come under barracks?

Admiral POTTER. None.

Mr. KELLEY. What would you do with a voucher that came through for repairs on barracks out of an appropriation for ships?

Admiral POTTER. Repairs on barracks out of an appropriation for ships?

Mr. KELLEY. Yes.

Admiral POTTER. I think I would be inclined to ascertain what the law was.

Mr. KELLEY. I mean if the barracks were used as a receiving ship.

Admiral POTTER. Such a thing would be chargeable against a yards and docks appropriation, and if it came prepared otherwise I hope I would observe it and ascertain the legal authority for it.

Mr. KELLEY. You would not be inclined to repair barracks except out of a yards and docks appropriation or some special appropriation?

Admiral POTTER. That would be my offhand opinion. Of course, I would have to see the particular item and determine about its merits.

COST OF NAVAL DISTRICTS.

Mr. KELLEY. What did the naval districts cost in 1916?

Admiral POTTER. The naval districts were united with the navy yards at that time and there was no distinguishing amount. In 1921 the district craft cost \$4,307,136.97.

Mr. KELLEY. Those include some district craft distinguished from any craft that we have been considering heretofore?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Why do you not put in a list of those vessels? We will have to have that, Admiral, by districts.

Admiral POTTER. We can get that from Admiral Coontz.

Mr. KELLEY. Of course, this is a large sum of money, \$4,307,136.97 for districts and district vessels, without having a list of the vessels.

Admiral POTTER. We have not the list in the bureau now. I will ask Operations for the vessels.

Mr. KELLEY. Take the third naval district. In 1921 the district independent now of all other vessels that we have been talking about heretofore, cost \$1,472,048.

Admiral POTTER. Yes, sir.

Mr. KELLEY. What is the nature of the district craft?

Admiral POTTER. They are all sorts of small vessels. I think perhaps, Admiral Coontz will be the best man to give you the particulars.

Mr. KELLEY. It will be comparatively easy to give us a list of the boats included in this expense of \$4,307,136 in 1921?

Col. ROOSEVELT. You want that for 1921, because the 1921 list does not correspond with this here, because we have already been over the 1921 craft.

Mr. KELLEY. How much was the 1922 cost of the districts, including district craft?

Admiral POTTER. \$819,985.22.

Col. ROOSEVELT. That is an estimate of 28 per cent over the year before.

Mr. KELLEY. The reduction in operating cost has been brought down lower.

Please put into the record at this point the naval district craft for 1921 and for the first three months of 1922, giving the name of the ship or number, if it has not a name, for each district, segregate the ships so we will know the type of ship, and all about it.

Admiral POTTER. I think the information can best be furnished by Admiral Coontz.

1921.

No.	Name of vessel.	Accrued pay.	Miscellaneous expense, including commuted rations.	Title C.	Stores issued, including provisions and medical stores.	Total operating expenses.	Equipment.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
NAVAL DISTRICTS.												
9901	First.	\$139,283.05	\$237,610.21		\$14,670.55	\$441,563.81	\$42,634.78		\$484,198.57			
9902	Second.	8,747.85	1,403.25		2,023.85	12,170.95	284,298.82	\$5.00	12,498.75			
9903	Third.	59,878.91	517,178.24		610,898.07	1,188,677.92	18,498.00	4.30	1,472,048.40			
9904	Fourth.	212,742.98	165,178.27		1,898.46	791,677.39	67,684.13		79,608.48			
9905	Fifth.	212,742.98	165,285.14		354,301.54	721,324.01	7,012.77	1,913.20	901,901.94			
9906	Sixth.	96,683.85	346,210.16		2,171.71	445,388.84	1,101.79		452,261.10			
9907	Seventh.	354.77	1,074.82		9,443.05	34,202.67	10,628.17		44,834.43			
9908	Eighth.	830.41	8,773.83		29,186.13	34,211.77	39,539.40		44,834.43			
9909	Ninth.	107,022.39	8,773.83		25,002.85	141,778.78	39,539.40		181,336.18			
9910	Tenth.	81,985.78	8,773.83		187,315.42	196,650.37	344.55		197,035.42			
9911	Eleventh.	11,069.13	135,322.48		43,578.63	189,650.28	945.57	6,739.30	200,724.22			
9912	Twelfth.	171,161.64	10,464.13		4,974.51	189,650.28	538.64		187,515.85			
9913	Thirteenth.		63,298.12		468.25	63,766.37	1,186.60	26.50	64,928.47			
9914	Fourteenth.	126,371.32	56,319.12		43,968.32	226,658.77			226,658.77			
9915	Fifteenth.											
	Total.	\$94,719.31	1,749,138.63		1,142,738.27	3,826,596.21	471,832.26	8,688.50	4,307,136.97			

No.	Name of vessel.	Title C.				Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Status. ¹	
		Accrued pay.	Miscellaneous expense, including commuted rations.	Stores issued, including provisions.	Days in full commission.					Operating with reduced complements in reserve or ordinary.	Days out of commission.
NAVAL DISTRICTS.											
99001	First.		\$177,897.53	\$1,150.49	\$179,048.02	\$36,800.00			\$215,848.02		
99003	Third.		86,280.72	50,124.01	316,166.20	1,711.18			317,878.47		
99004	Fourth.		23,088.69	12,000.00	21,088.69	115.00		\$1.09	21,073.69		
99005	Fifth.		35,392.27	11,004.28	46,396.55	753.19		7.50	47,157.24		
99006	Sixth.		9,977.78	2,831.18	17,590.43				17,590.43		
99007	Seventh.	4,781.47	376.50	61.60	438.10				438.10		
99008	Eighth.			279.55	279.55				279.55		
99009	Ninth.		501.50	1,346.60	1,848.10	960.88			2,808.98		
99011	Eleventh.	49,541.28	3,288.98		52,830.26				52,830.26		
99012	Twelfth.	4,424.62	9,304.75	1,232.38	14,961.75	737.37		26.64	15,725.76		
99013	Thirteenth.	88,307.04	46.55		88,353.59				88,353.59		
99014	Fourteenth.		5,417.03		5,417.03				5,417.03		
99015	Fifteenth.	34,552.64			34,552.64	11.46			34,564.10		
	Total.	361,388.52	351,552.30	66,030.09	778,970.91	40,979.08		35.23	819,985.22		

¹ Credit.

1916.

No.	Name of vessel.	Title C.			Total operating expenses.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.	
		Accrued pay.	Public vouchers (including committed rations).	Stores issued (including provisions and medical stores).						Full commission in reserve.	Commission in reserve.
	Grand total.....	\$30,566,165.62	\$1,130,192.55	\$16,280,562.65	\$47,976,920.82	\$8,556,504.69	\$56,533,425.51				
	Grand total, equipage.....					14,133,356.38					
							70,669,781.89				

1921.

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Tonnage.	Date of first commission.	Months in commission.
		Accrued pay.	Miscellaneous expense, including committed rations.	Stores issued, including provisions and medical stores.							
	Grand total.....	\$69,299,639.58	\$6,793,161.21	\$72,282,941.43	\$178,375,742.22	\$43,078,678.81	\$44,075,749.91	\$266,130,170.94			

1922.

[First quarter.]

No.	Name of vessel.	Title C.			Total operating expenses.	Equipage.	Repairs and alterations to ships, including equipage.	Total maintenance and operation.	Days in full commission.	Status.	
		Accrued pay.	Miscellaneous expense, including committed rations.	Stores issued, including provisions.						Operating with reduced complement in reserve or ordinary.	Days out of commission.
	Grand total.....	\$68,185,081.28	\$1,416,778.44	\$15,727,711.87	\$60,869,569.55	\$4,626,379.94	\$6,976,733.14	\$60,886,341.87			

TUESDAY, MARCH 7, 1922.

LOCATION AND DISPOSITION OF SHIPS AND THEIR COMPLEMENTS.

STATEMENTS OF HON. EDWIN DENBY, SECRETARY OF THE NAVY; COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY OF THE NAVY; ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS; LIEUT. COMMANDER HARRY W. HILL, AID TO THE ADMIRAL; CAPT. PHILIP WILLIAMS, ASSISTANT TO BUREAU OF NAVIGATION; CAPT. EDWARD C. KALBFUS, MATERIAL DIVISION, OPERATIONS; COMMANDER LAMAR R. LEAHY, AND MR. CLYDE REED, SPECIAL ASSISTANT, BUREAU OF SUPPLIES AND ACCOUNTS.

FIRST-LINE BATTLESHIPS TO BE KEPT IN COMMISSION BY TREATY.

Mr. KELLEY. We have with us this morning Admiral Coontz and a number of his assistants who will testify directly. The Secretary and Assistant Secretary are also present.

Admiral Coontz, the matter that we have in mind particularly to-day is the question of ships of the Navy, and we would like to have from you a statement covering by number and name each ship of each group, approximating as nearly as you can the personnel required for such ships. If you will take the annual report of the Paymaster General of the Navy for 1921, we will start at the beginning and carefully run down the list. I think if we do that, that by night, perhaps, we will have a pretty clear view of what is required. Now, the first ship on the list is the *South Carolina*. Do you intend to have that ship in commission next year?

Admiral COONTZ. We do not, provided the treaty goes through.

Mr. KELLEY. So we may eliminate the *South Carolina* and likewise the *Michigan*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Do you intend to have the *Delaware* in commission?

Admiral COONTZ. We intend to have the *Delaware* in commission the treaty passes, until she is replaced by the *Colorado*, we will say.

Mr. KELLEY. How many men do you calculate you will require for the *Delaware*?

Admiral COONTZ. I would like to have Admiral Washington answer as to that. The Secretary's estimate is 95 per cent of the official complement.

Mr. KELLEY. I notice from a statement filed on April 1, 1921, that the complement of the *Delaware* was 1,263.

Admiral COONTZ. I would like, however, to verify these figures by Admiral Washington.

Mr. KELLEY. Ninety-five per cent of that would be about 1,200 in round numbers. Shall we put her down at 1,200?

Admiral COONTZ. I would like to have it put down temporarily at way until we can hear from Admiral Washington or Captain Williams.

Mr. KELLEY. Have you the actual number of men that were carried on the *Delaware* before the war?

Admiral COONTZ. No, sir.

Colonel ROOSEVELT. I can give you that approximately. It was approximately 830.

Mr. KELLEY. You intend to keep in commission, if everything goes well with the treaty, the *Delaware*, the *North Dakota*, the *Florida*, the *Utah*, the *Wyoming*, the *Arkansas*, the *New York*, the *Texas*, the *Nevada*, the *Oklahoma*, the *Pennsylvania*, the *Arizona*, the *New Mexico*, the *Mississippi*, the *Idaho*, the *Tennessee*, the *California*, and the *Maryland*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That makes 18?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. We would like to have you insert in the record a table showing the names of the ships that are to be kept in commission during the coming year, with the complements you are asking for, and also a statement showing the complements in 1916.

Admiral COONTZ. We will do that.

Colonel ROOSEVELT. We have the total of the complement here.

Mr. KELLEY. I would like to have it by ships. We would like to have at this point the statement I have indicated covering those battleships.

Admiral COONTZ. We will supply that.

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature.

[Based on 90,000 enlisted strength plus 6,000 apprentice seamen. Men on board July 1, 1916, given when possible. Proposed allowance for 1923 same as that given for 1922.]

	Men on board, July 1, 1916.	Allow- ance for 1922.
18 battleships, first line:		
Atlantic Fleet—		
Delaware.....	830	1,125
North Dakota.....	830	1,125
Florida.....	837	1,125
European waters (flag), Utah.....	828	1,125
Atlantic Fleet—		
Wyoming.....	915	1,225
Arkansas.....	916	1,225
Pacific Fleet—		
New York.....	902	1,245
Texas.....	902	1,245
Nevada.....		1,245
Oklahoma.....		1,245
Pennsylvania.....	951	1,275
Arizona.....		1,275
New Mexico.....		1,275
Mississippi.....		1,275
Idaho.....		1,275
Tennessee.....		1,275
California.....		1,275
Maryland (assigned to Pacific Fleet; now flagship of commander in chief Atlantic Fleet).....		1,275
Total.....		21,125
2 battleships, second line:		
Illinois (loaned to State of New York, training Naval Militia).....	605	800
Connecticut (to be replaced by armored cruiser Seattle if treaty is signed).....	844	800
Total.....		1,400
Battle cruisers, first line, none. Two to be converted to aircraft carriers.		
5 cruisers, second line:		
Rochester, Atlantic Fleet (destroyers (flag) at Charleston, S. C.).....	453	500
Huron, Asiatic Fleet (flagship).....	788	700

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allow- ance for 1922.
5 cruisers, second line—Continued.		
Seattle navy yard, Puget Sound, out of commission (Seattle to replace Connecticut if treaty is signed).....	840	
Pueblo (to replace Utah in European waters, later).....	778	791
Charleston, Pacific Fleet (destroyer flagship, immobile).....	649	649
Total.....		2,775
3 light cruisers, first line, Omaha (commission when completed May 31, 1922) (two others when completed, 419 men on each).....		1,257
5 light cruisers, second line:		
Special service squadron—		
Birmingham.....	356	300
Denver.....	274	288
Galveston.....	274	288
Tacoma.....	274	288
Cleveland.....	274	288
Total.....		1,452
1 aircraft carrier, second line, Langley (ex-Jupiter), being converted at navy yard, Norfolk; date of completion, May 1, 1922; will be commissioned about Apr. 1, 1922.....		339
1 mine layers, second line:		
Pacific Fleet—		
Baltimore, mine squadron; 2 at Pearl Harbor to go out of commission when relieved by Aroostook.....	320	334
Aroostook (aircraft tender; goes to mine force when relieved by Langley).....		250
Atlantic Fleet, Shawmut (mine squadron).....		369
Total.....		953
25 destroyers, first line:		
Distribution of 90 per cent complement destroyers to be retained in commission—		
With Atlantic Fleet.....	19	
With Pacific Fleet.....	57	
With Asiatic Fleet.....	19	
In European waters.....	8	
103×102.....		10,506
Distribution of 50 per cent complement destroyers to be retained in commission at Charleston.....	23×57.....	1,311
126		
SUMMARY OF DESTROYERS, INCLUDING LIGHT MINE LAYERS, CONVERTED FROM DESTROYERS, FIRST LINE.		
Now on Navy list:		
Destroyers, first line.....	283	
Destroyers, second line.....	21	
Light mine layers (converted destroyers, first line).....	14	
Total destroyer hulls (including those in commission and out of commission).....	318	
Destroyers, second line, none.		
Light mine layers:		
Atlantic mine squadron—		
Murray.....		99
Israel.....		99
Maury.....		99
Mahan.....		99
Asiatic mine squadron, Hart.....		99
Pacific mine squadron—		
Ingraham.....		99
Ludlow.....		99
Burns.....		99
Anthony.....		99
Asiatic mine squadron, Rizal.....		99
Total.....		990
Submarines, first line:		
16 O's.....		432
27 R's.....		729
2 S's.....		1,292
Total.....		2,453
More submarines, first line, 3 T's.		126

List of United States naval vessels to be retained in commission after June 30, 1923, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	All ships, 1919
27 submarines,¹ second line, (two-thirds complement):		
8 H's (3 in commission 1916).....	66	
8 K's.....	192	
8 L's.....	176	
3 N's.....		
35 patrol vessels, Eagles:		
Eagle 6 (at Pearl Harbor, engaged in antisubmarine tactics).....		
Eagle 7 (at Pearl Harbor, engaged in antisubmarine tactics).....		
Eagle 8 (at Pearl Harbor, engaged in antisubmarine tactics).....		
Eagle 9 (fifth naval district, training reservists).....		
Eagle 11 (duty with submarines, San Pedro).....		
Eagle 12 (training reservists, eleventh naval district).....		
Eagle 13 (training reservists, third naval district).....		
Eagle 14 (duty with submarines at Pearl Harbor).....		
Eagle 15 (training reservists, third naval district).....		
Eagle 17 (duty with submarines, Hampton Roads).....		
Eagle 19 (training reservists, first naval district).....		
Eagle 23 (on duty, Quantico, freight and passengers to Washington).....		
Eagle 25 (training reservists, third naval district).....		
Eagle 27 (training reservists, third naval district).....		
Eagle 29 (training reservists, first naval district).....		
Eagle 31 (duty with submarines at Coco Solo).....		
Eagle 33 (duty with submarines, New London).....		
Eagle 34 (training reservists, eleventh naval district).....		
Eagle 35 (training reservists, twelfth naval district).....		
Eagle 36 (training reservists, eighth naval district).....		
Eagle 38 (training reservists, thirteenth naval district).....		
Eagle 39 (training reservists, seventh naval district).....		
Eagle 40 (duty air station, Pearl Harbor).....		
Eagle 42 (training reservists, first naval district).....		
Eagle 44, training reservists, third naval district.....		
Eagle 47, training reservists, twelfth naval district.....		
Eagle 48, training reservists, third naval district.....		
Eagle 51, training reservists, third naval district.....		
Eagle 52, training reservists, fourth naval district.....		
Eagle 54, training reservists, third naval district.....		
Eagle 55, training reservists, third naval district.....		
Eagle 56, training reservists, Washington, D. C.....		
Eagle 57, training reservists, thirteenth naval district.....		
Eagle 58, training reservists, Pearl Harbor.....		
Eagle 59, training reservists, third naval district.....		
Total.....		
SUMMARY OF EAGLES.		
In commission (35):		
Training reservists.....	25	
Submarine duties.....	8	
Air station duty.....	1	
Ferry, Washington to Quantico.....	1	
Total.....	35	
Out of commission and in ordinary.....	19	
Total.....	54	
43 patrol vessels, submarine chasers:		
Submarine chaser 57, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 63, St. Louis, training reservists.....		
Submarine chaser 64, St. Louis, training reservists.....		
Submarine chaser 69, St. Petersburg, training reservists.....		
Submarine chaser 102, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 103, New Haven, Conn., training reservists.....		
Submarine chaser 104, Tampa, Fla., training reservists.....		
Submarine chaser 143, New York, training reservists.....		
Submarine chaser 154, seventh naval district.....		
Submarine chaser 159, eighth naval district, station duties, New Orleans.....		
Submarine chaser 165, Dahlgren, Va., proving ground duties.....		
Submarine chaser 191, eighth naval district, training reservists.....		
Submarine chaser 192, Indianhead, Md., proving ground duties.....		
Submarine chaser 210, navy yard, Washington, training reservists.....		
Submarine chaser 214, Haiti activities, marine brigade, Haiti.....		
Submarine chaser 223, Haiti activities, marine brigade, Haiti.....		

¹ Total complement, 430.

² With submarine base.

³ Manned with Air Service personnel.

List of United States naval vessels to be retained in commission after June 30, 1922, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allowance for 1922.
43 patrol vessels, submarine chasers—continued.		
Submarine chaser 224, New York, training reservists		3
Submarine chaser 229, Naval Academy, intermittently training midshipmen		4
Submarine chaser 231, Naval Academy, intermittently training midshipmen		4
Submarine chaser 237, Naval Academy, intermittently training midshipmen		4
Submarine chaser 251, Indianhead, Md., out of commission		
Submarine chaser 253, Haiti activities, marine brigade, Haiti		17
Submarine chaser 271, Stamford, Conn., training reservists		3
Submarine chaser 277, eleventh naval district, duty with reserve destroyer force		7
Submarine chaser 278, eleventh naval district, duty with reserve destroyer force		7
Submarine chaser 284, fifteenth naval district, submarine operations		7
Submarine chaser 285, fifteenth naval district, seaplane tender		7
Submarine chaser 287, fifteenth naval district, undergoing overhaul		7
Submarine chaser 303, twelfth naval district, calibration compasses		7
Submarine chaser 306, eleventh naval district		7
Submarine chaser 326, Naval Academy, intermittently training midshipmen		4
Submarine chaser 328, Naval Academy, intermittently training midshipmen		4
Submarine chaser 330, ninth naval district, training reservists		3
Submarine chaser 340, Guantanamo, St. Thomas		9
Submarine chaser 406, first naval district, general district duties		7
Submarine chaser 412, ninth naval district, training reservists		3
Submarine chaser 419, ninth naval district, training reservists		3
Submarine chaser 431, ninth naval district, ordnance, third naval district, for training reservists		3
Submarine chaser, 432 ninth naval district, at Cleveland, training reservists		3
Submarine chaser 433, ninth naval district, ordnance, third naval district, training reservists		3
Submarine chaser 437, ninth naval district, ordnance, third naval district, training reservists		3
Submarine chaser 440, Naval Academy, intermittently training midshipmen		4
Submarine chaser 443, San Domingo, duties connection military government Dominican Republic		17
Submarine chaser 444, San Domingo, duties connection military government Dominican Republic		17
Submarine chaser 96 and 338,* at Constantinople, being used until can be sold		
Total		261
SUMMARY, SUBCHASERS.		
Training midshipmen	8	
Training reservists	16	
District and naval station duties	17	
Submarine and seaplane duties	2	
Total	43	
Out of commission and on sale	38	
Total	81	
patrol vessels, gunboats:		
Wilmington, Asiatic Fleet, Yangtze patrol at Amoy	169	162
Palos, Asiatic Fleet, Yangtze patrol	45	46
Sacramento, Asiatic Fleet, assigned (orders to proceed temporarily withheld)	135	152
Monocacy, Asiatic Fleet, Yangtze patrol	45	46
Asheville, Asiatic Fleet, assigned (orders to proceed temporarily withheld)		148
Ekano, Asiatic Fleet, Yangtze patrol	93	93
Pampanga, Asiatic Fleet, South China patrol	29	30
Quyyros, Asiatic Fleet, Yangtze patrol	54	55
Villalobos, Asiatic Fleet, Yangtze patrol	54	55
Total		787
patrol vessels, yachts:		
Mayflower, navy yard, Washington (President's yacht)	172	160
Vixen, naval station, St. Thomas (station ship)	74	72
Sybil, navy yard, Washington (Navy Department tender)	28	32
Nokomis, San Domingo City (station ship and transport for military government)		66
Isabel, Asiatic Fleet, Yangtze patrol		83
Scorpion, Constantinople station ship		132
Total		545
auxiliaries, destroyer tenders:		
Melville	315	449
Black Hawk		440

* Manned by men from Scorpion or destroyers.

*List of United States naval vessels to be retained in commission after June 30, 1922.
classified according to standard nomenclature—Continued.*

	Men on board, July 1, 1916.	Allo- cated for 1922.
6 auxiliaries, destroyer tenders—Continued.		
Bridgeport.....		530
Altair.....		430
Denebola.....		430
Rigel.....		430
Total.....		2,730
Auxiliaries, submarine tenders:		
Fulton.....	129	134
Bushnell.....	145	166
Beaver.....		200
Camden.....		244
Rainbow.....	217	267
Savannah.....		236
Canopus.....		202
Total.....		1,002
Auxiliary, aircraft tender:		
Wright, air squadron, Atlantic.....		26
Auxiliaries, repair ships:		
Prometheus, Atlantic Fleet (train).....	230	49
Vestal, Pacific Fleet (train).....	230	49
Total.....		98
Auxiliaries, store ships:		
Bridge, Atlantic Fleet (train).....		130
Rappahannock, Pacific Fleet (train).....		200
Arctic, Atlantic Fleet (train).....		130
Total.....		460
4 auxiliaries, colliers:		
Proteus, Atlantic Fleet.....	91	101
Nereus, Atlantic Fleet.....	91	101
Orion, Atlantic Fleet.....	91	101
Jason, Pacific Fleet.....	91	101
Total.....		404
10 auxiliaries, oilers:		
Arethusa, N. T. S., Atlantic.....	43	76
Brazos, Atlantic Fleet.....		120
Cuyama, Pacific Fleet.....		120
Kanawha, Pacific Fleet.....	76	120
Neches, Pacific Fleet.....		120
Patoza, N. T. S., Pacific.....		120
Pecos, Asiatic Fleet.....		120
Ramapo, N. T. S., Pacific.....		120
Sapelo, N. T. S., Atlantic.....		120
Trinity, N. T. S., Atlantic.....		120
Total.....		1,002
2 auxiliaries, ammunition ships:		
Pyro, N. T. S.....		170
Nitro, N. T. S.....		170
Total.....		340
8 auxiliaries, cargo ships:		
Kittery.....		170
Newport News.....		170
Bath.....		170
Capello.....		170
Syrus.....		170
Vega.....		170
Regulus.....		170
Beaufort.....		170
Total.....		1,360

United States naval vessels to be retained in commission after June 30, 1922,
classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	Allow- ance for 1922.
s, transports:		
son.....		397
le.....		222
ont.....		214
		833
s, hospital ships:		
		361
		348
		709
es, fleet tugs:		
ook, ⁵ on duty with Atlantic Fleet.....		39
	34	
im, ⁵ Guantanamo, general towing.....		39
Guam, island duties.....		39
o, ⁵ Samoa, island duties.....	49	54
i, ⁵ Haiti, island duties.....	27	34
	45	
	46	
	45	
ac, ⁵ Santo Domingo, island towing.....	36	42
a, ⁵ on duty with Pacific Fleet.....	49	54
ac, ⁵ St. Thomas, island duties.....		39
	26	
		340
SUMMARY OF FLEET TUGS.		
	2	
tations.....	6	
	8	
es, mine sweepers:		
Guantanamo, train, Atlantic.....		45
w, Bremerton, thirteenth district.....		41
r, Pearl Harbor, mine squadron, Pacific.....		54
al, San Pedro, train, Pacific.....		45
, Guantanamo, mine squadron, Atlantic.....		54
Cavite, mine squadron, Asiatic.....		54
Guantanamo, train, Atlantic.....		45
lge, San Diego, train, Pacific.....		45
nk, Guantanamo, train, Atlantic.....		45
Guantanamo, mine force, Atlantic.....		54
harleston, air squadron, Atlantic.....		45
San Diego, train, Pacific.....		45
her, San Pedro, train, Pacific.....		45
Guantanamo, train, Atlantic.....		45
, New York yard, submarine salvage vessel.....		54
, Pearl Harbor, mine squadron, Pacific.....		54
San Diego, train, Pacific.....		45
n, Pearl Harbor, mine squadron, Pacific.....		54
oorwill, Pearl Harbor, mine squadron, Pacific.....		54
i, Cavite, mine squadron, Asiatic.....		54
nk, Guantanamo, mine squadron, Atlantic.....		54
rant, Philadelphia, special duty, Bureau of Ordnance.....		54
, San Pedro, seaplane tender, Pacific.....		42
i, Guantanamo, mine squadron, Atlantic.....		54
per, Miami, air squadron, Atlantic.....		45
Guantanamo, train, Atlantic.....		45
		127
SUMMARY OF MINE SWEEPERS.		
rain.....	5	
in.....	5	
ir squadron.....	2	
ine squadron.....	4	
ne squadron.....	4	
ne detachment.....	2	
tender.....	1	
salvage.....	1	
io calibration.....	1	
Ordnance, experimental purposes.....	1	
	26	

ws of these tugs are included in the "forces afloat," those of the remaining 29 are included in blishments."

List of United States naval vessels to be retained in commission after June 30, classified according to standard nomenclature—Continued.

	Men on board, July 1, 1916.	A
Loaned to Shipping Board.....	3	
To be loaned to Coast and Geodetic Survey.....	2	
Out of commission.....	18	
Total.....	49	
4 auxiliaries, miscellaneous:		
Hannibal, survey ship, now at work, coast Honduras.....	143	
General Alava, Asiatic station, transport, Cavite to Olongapo.....	88	
Paducah, navy yard, Portsmouth, assigned ninth naval district for United States Naval Reserve Force.....	160	
Gold Star, fitting out at Philadelphia: Alaska radio repair ship; replaces Saturn.....		
Antares, target repair ship.....		
Procyon, target repair ship.....		
Total.....		
25 unclassified:		
NOTE.—Men on receiving ships are carried under "shore establishments;" men on vessels training naval reserves belong to "forces afloat."		
Cheyenne, ³ training ship, U. S. Naval Reserve Force, fifth district, Baltimore.....	210	
Essex, ³ ninth naval district, training, U. S. Naval Reserve Force.....	377	
Gopher, ³ ninth naval district, training, U. S. Naval Reserve Force.....	6	
Hawk, ³ ninth naval district, training, U. S. Naval Reserve Force.....	12	
.....	78	
.....	38	
.....	638	
.....	35	
.....	91	
.....	55	
Wilmette, ³ ninth naval district, training, U. S. Naval Reserve Force.....		
Wolverine, ³ fourth naval district, training, U. S. Naval Reserve Force.....	82	
Yantic, ³ ninth naval district, training, U. S. Naval Reserve Force.....		
Total chargeable to forces afloat.....		
Bureau of Fisheries—		
Albatross.....		
Fish Hawk.....		
Total.....		
Flag complement.....		
Fleet aviation.....		
Total.....		
Grand total.....		

* The crews of these vessels are included in the "forces afloat"; those of the remainder are included in "shore establishments."

HOUSE OF REPRESENTATIVES,
COMMITTEE ON APPROPRIATIONS,
Washington, D. C., March 20, 1923.

MY DEAR CAPTAIN: The inclosure has been returned with the manuscript of testimony of the 7th instant, which you submit as an insert in response to my request but it is not as complete as I desire it. It is not clearly headed, and it is classified differently than the classification used in the first day's hearings, of which it is a part. This, of course, would make it very confusing to anyone reading the hearings.

The Chief of Naval Operations presented to the committee at the opening of the hearings a "List of vessels to be in commission after June 30, 1922, tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement No. 4," and the first day's hearings were conducted in accordance with such submission. Therefore, what I want is a list prepared in accordance with that classification, class by class and vessel by vessel, showing: (1) the actual number of men aboard on July 1, 1916, or some certain date in 1916, to be specified; (2) the actual number of men aboard such vessels on February 1, 1922, so as to conform with the data supplied the House Naval Committee printed by said committee as Circular No. 42, and used at our hearings; and (3) complements you are proposing for the fiscal year 1923. Such is the statement I want and if I did not make myself clear I am sorry that it is necessary to occasion you additional work. It is quite important that I have this revised table Tuesday after

Under column 2 of the table please put an asterisk (*) before the number of men on board a vessel which will be engaged upon different duties in 1923, necessitating additional or less personnel, with a general explanatory footnote, as, for example, the *Pueblo* and *Seattle*, and put a double asterisk (**) in column 2 before the number of men on board a vessel which is doing duty taking personnel chargeable to the shore establishment, as, for example the *Pueblo*, now used as a receiving ship.

I notice in the inclosure that you include both the *Connecticut* and the *Seattle*. If the latter is to relieve the former I do not see why you count the men on both. Please watch out for such things in the new statement.

I also notice that you state the inclosure is based on 90,000 enlisted men, plus 6,000 apprentices. Please bear in mind that the classification submitted at the first of my's hearings was not submitted pursuant to any suggestion or request that it be confined to any particular number of men.

Kindly return the inclosure with your revised statement, of which latter two copies are required.

Very sincerely,

P. H. KELLEY,
Chairman Naval Subcommittee.

Capt. PHILIP WILLIAMS, U. S. Navy,
Bureau of Navigation, Navy Department.

NAVY DEPARTMENT,
Washington, March 22, 1922.

MY DEAR MR. KELLEY: Replying to your letter of March 21 addressed to Capt. Philip Williams, U. S. Navy, Bureau of Navigation, I regret that the list which was inserted in the testimony of the 7th for your committee is not as complete as you desire; and is not headed and classified the way you want it, for I wish to assure the committee that I am only too anxious to furnish all the information possible in the way in which it will be of most use to the members.

Referring to this list of vessels, however, I wish to state that there was no list of vessels to be in commission after June 30, 1922, tabulated in accordance with classification in the annual report of the Paymaster General of the Navy for the fiscal year 1921, statement No. 4, furnished the committee by the Chief of Naval Operations on the opening of the hearings, and that the only attempt made in the short time at hand after receiving your request regarding same was to check with pencil on statement No. 4 the list of vessels that it was desired to retain in commission after June 30, 1922, including receiving ships, district craft, etc., which was done in five copies of the annual report of the Paymaster General and given to your committee on the 7th. The typewritten list which was presented to your committee on the 7th by the Chief of Naval Operations was a copy of the one that you have returned, except that it had no mention of men on board the ships listed there, or the allowance for 1922-23.

As soon as your letter of the 21st to Captain Williams was received in the department, steps were taken immediately to tabulate the information requested therein, and I regret to say that so much work is involved that it was found to be physically impossible to have this new table ready for you Tuesday afternoon as you requested.

Referring to the notation at the top of the list stating that it is based on 90,000 enlisted men plus 6,000 apprentices, I understand perfectly that the committee made no mention of any enlisted strength in regard to any list, but before a list can be made a definite number of men must be taken as a basis, and for the basis in compiling the list furnished the committee an enlisted strength of 90,000 men plus 6,000 apprentices was taken.

In view of the fact that so much of the hearings on the succeeding days refer to this list, classified in accordance with the standard nomenclature which is gotten from the Navy date book, 1921, it is requested that this list be published together with that furnished according to statement 4 of the Paymaster General's annual report for 1921. Including both the *Connecticut* and *Seattle* was due to placing the allowance for the year for 1922 rather than the number of men that she had on board July 1, 1916. The mistake has been rectified, and I trust that you will find no others, although working under the pressure that has been required of those compiling these lists, it is only to be expected that some errors have not occurred.

Trusting that you will not hesitate to call upon me for any further information which may be of value to the committee, I beg to remain,

Very sincerely, yours,

THOS. WASHINGTON, Acting.

MR. PATRICK H. KELLEY,
House of Representatives, Washington, D. C.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance classification of annual report of the Paymaster General of the Navy for the fiscal 1921—Statement 4.

Vessels.	1916		1922		Prog 1922 lowa
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Battleships:					
First line—					
Delaware.....	830	803	1,198	935	
North Dakota.....	830	277	1,196	995	
Florida.....	837	904	1,196	808	
Utah.....	828	862	1,196	879	
Wyoming.....	915	1,002	1,289	1,048	
Arkansas.....	916	956	1,289	1,074	
New York.....	902	933	1,308	1,037	
Texas.....	902	932	1,308	1,039	
Nevada.....	920	932	1,186	959	
Oklahoma.....	920	894	1,186	929	
Pennsylvania.....	951	788	1,238	1,029	
Arizona.....	951		1,232	988	
New Mexico.....	951		1,272	1,062	
Mississippi.....	951		1,232	997	
Idaho.....	951		1,232	974	
Tennessee.....			1,266	998	
California.....	951		1,266	1,294	
Maryland.....			1,266	1,154	
Total.....	(1)	(1)		18,259	2
Second line—					
Illinois (training reserves).....	605	290	60	47	
Connecticut ¹	844	275	550	542	
Total.....				589	
Cruisers:					
Armored—					
Huron.....	788	439	791	684	
Pueblo ²	778	426	320	320	
Seattle ³	778	840	791		
Total.....				1,004	
First class—					
Charleston.....	649	279	142	193	
Rochester.....	453	141	544	366	
Total.....				559	
Second class—Omaha, plus two others.....					
Third class—					
Birmingham.....	356	381	300	276	
Cleveland.....	274	278	288	296	
Denver.....	274	269	288	303	
Galveston.....	274	255	288	302	
Tacoma.....	274	65	288	277	
Total.....				1,454	
Monitor: Cheyenne (training reserves).....	210	153	34	36	
Destroyers:⁴					
103 vessels.....			11,742	9,608	
23 vessels.....			1,311		
Total.....					
Light mine layers—					
Mahan.....			99	100	
Murray.....			99	95	
Maury.....			99	85	
Israel.....			99	99	
Ingraham.....			99	104	
Ludlow.....			99	93	
Burns.....			99	103	

¹ Connecticut to be scrapped if treaty is ratified.

² Pueblo is now receiving ship at New York and will be assigned as flagship, European Squadron relief of Utah. Pueblo in 1922 has 470 extra men as receiving ship.

³ Seattle will be commissioned as flagship, train Pacific, if Connecticut is placed out of commission.

⁴ Impossible to give the men on board separately as it is not known at this moment which boat name will be in full commission and which acting with 50 per cent complements.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Pr 15 low
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Submarines—Continued.					
First line, full commission—					
O-1.....			27	26	
O-2.....			27	26	
O-3.....			27	26	
O-4.....			27	26	
O-5.....			27	26	
O-6.....			27	27	
O-7.....			27	27	
O-8.....			27	27	
O-9.....			27	27	
O-10.....			27	27	
O-11.....			27	26	
O-12.....			27	23	
O-13.....			27	22	
O-14.....			27	25	
O-15.....			27	26	
O-16.....			27	27	
R-1.....			27	29	
R-2.....			27	28	
R-3.....			27	29	
R-4.....			27	29	
R-5.....			27	25	
Second line in commission, two-thirds comple- ment—					
H-2.....	22	20	15	27	
H-3.....	22	19	15	26	
H-4.....			15	29	
H-5.....			15	27	
H-6.....			15	29	
H-7.....			15	26	
H-8.....			15	26	
H-9.....			15	26	
Total.....	66			236	
K-1.....	24	24	15	21	
K-2.....	24	23	15	21	
K-3.....	24	24	15	21	
K-4.....	24	25	15	21	
K-5.....	24	22	15	25	
K-6.....	24	22	15	23	
K-7.....	24	24	15	23	
K-8.....	24	24	15	22	
Total.....	192			177	
L-2.....	22		17	9	
L-3.....	22	29	17	3	
L-5.....	22		17	25	
L-6.....	22		17	29	
L-7.....	22		17	25	
L-8.....	22		17	24	
L-9.....	22		17	15	
L-11.....	22		17	2	
Total.....	176				
N-1.....			18	15	
N-2.....			18	20	
N-3.....			18	15	
Total.....				182	
Grand total.....				3,048	
Submarine chasers: *					
No. 57 (training midshipmen)†.....			** 4	11	
No. 63 (training reserves).....			3	3	
No. 64 (training reserves).....			3	6	

* H-1 in commission 1916; on board, 19; complement, 22.

† Nos. 338 and 96 at Constantinople to be sold. Manned by men from *Scorpion* or *destroyers*.

‡ The 8 subchasers listed as training midshipmen are in a noncommission status and are used intently for drill purposes.

vessels to be in commission after June 30, 1922—Tabulated in accordance with
 statement of annual report of the Paymaster General of the Navy for the fiscal year
 Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
chasers—Continued.					
(training reserves).....			3	2	3
(training midshipmen).....			** 4	4	4
(training reserves).....			3	2	3
(training reserves).....			3	3	3
(training reserves).....			3	2	3
(training reserves).....			** 8	7	8
(personnel supplied from air station).....					
(training reserves).....			** 12	11	12
(training reserves).....			3	2	3
(training reserves).....			** 11	10	11
(training reserves).....			3	5	3
(training reserves).....			** 17	9	17
(training reserves).....			** 17	8	17
(training midshipmen).....			4	4	4
(training midshipmen).....			4	4	4
(training midshipmen).....			4	4	4
(training reserves).....			17	16	17
(training reserves).....			3	3	3
(training reserves).....			** 7	10	7
(training reserves).....			** 7	7	7
(training reserves).....			** 7	4	7
(training reserves).....			** 7	3	7
(training reserves).....			** 7		7
(training reserves).....			** 7	7	7
(training reserves).....			** 7	13	7
(training midshipmen).....			** 4	4	4
(training midshipmen).....			** 4	4	4
(training reserves).....			3	3	3
(training reserves).....			** 9	10	9
(training reserves).....			** 7	9	7
(training reserves).....			3	3	3
(training reserves).....			3	3	3
(training reserves).....			3	3	3
(training reserves).....			3	3	3
(training reserves).....			3	3	3
(training reserves).....			3	3	3
(training reserves).....			** 4	19	4
(training reserves).....			** 17	18	17
(training reserves).....			** 17	19	17
				264	261
ng reserves).....			10	45	10
ng reserves).....			10	38	10
ng reserves).....			10	42	10
ng reserves).....			10	12	10
submarine base).....			(**)		(*)
ing reserves).....			10	10	10
ing reserves).....			10	10	10
submarine base).....			(**)		(*)
ing reserves).....			10	10	10
submarine base).....			(**)		(*)
ing reserves).....			10	10	10
ing reserves).....			36	28	36
ing reserves).....			10	10	10
ing reserves).....			10	9	10
ing reserves).....			10	10	10
submarine base).....			(**)		(*)
submarine base).....			(**)		(*)
ing reserves).....			10	13	10
ng reserves).....			10	13	10
ng reserves).....			10	6	10
ng reserves).....			10	10	10
ng reserves).....			10	10	10
ng reserves).....			(**)		
nnel supplied from air station).....			10	10	10
ing reserves).....			10	10	10
ng reserves).....			10	14	10
ng reserves).....			10	10	10
ng reserves).....			10	10	10
ng reserves).....			10	4	10

base.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Pr li low
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Eagles—Continued.					
54 (training reserves).....			10	10	
55 (training reserves).....			10	10	
56 (training reserves).....			10	6	
57 (training reserves).....			10	12	
58 (training reserves).....			10	27	
59 (training reserves).....			10	10	
Total.....				419	
Tenders to torpedo boats:					
Beaver (submarines).....			292	300	
Bushnell (submarines).....	145	180	195	179	
Fulton (submarines).....	129	170	134	131	
Hannibal (surveying ship).....	143	134	146	137	
Melville.....	315	314	449	332	
Prometheus (repair ship).....	230	176	430	370	
Rainbow (submarines).....	217	81	297	322	
Additional tenders, not shown on Paymaster General's report—					
Altair *.....			269	74	
Denebola *.....			250	242	
Rigel *.....			398	41	
Canopus (submarines) *.....			456	486	
Total.....				2,573	
Gunboats:					
Paducah.....	131				
El Cano.....	93	80	93	83	
Essex (training reserves).....	6		18	17	
Gopher (training reserves).....	12		15	12	
Monocacy.....	45	48	46	48	
Palos.....	45	46	46	55	
Pampanga.....	29	31	30	30	
Quiros.....	54	53	55	47	
Sacramento.....	135	147	152	176	
Villalobos.....	54	55	55	56	
Wilmette (training reserves).....			25	23	
Wilmington.....	169	135	162	151	
Wolverine (training reserves).....	82		8	6	
Yantic (training reserves).....			15	15	
Additional, not shown on Paymaster General's report: Asheville.....			148	150	
Total.....				899	
Transports:					
Hancock (receiving ship).....	215		130	(**)	
Henderson.....	201		397	01	
Additional transports, not shown on Paymaster General report: Chaumont.....			214	240	
Total.....				641	
Supply ships:					
Bridge.....			189	208	
Additional supply ships, not shown in Paymaster General's Report: Arctic.....			188	220	
Total.....				428	
Hospital ships:					
Mercy.....			348	298	
Relief.....			361	411	
Total.....				679	
Fuel ships:					
Arethusa.....			78	78	
Brazos.....			120	172	
Cuyama.....			120	95	

* Figures for complements of Altair, Denebola, and Rigel were tentative, and did not include repair. Canopus was shown as a shore-based tender under 42, is now a submarine tender.

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Fuel ships—Continued.					
Jason.....			164	152	164
Kanawha.....			120	101	120
Langley (airplane carrier).....	157	150	339	216	339
Nereus.....			164	141	164
Orion.....			164	209	164
Patoka.....			91	99	91
Proteus.....			164	153	164
Ramapo.....			91	119	91
Sapelo.....			91	16	91
Trinity.....			91	101	91
Additional fuel ships, not shown on Paymaster General's Report—					
Neches.....			101	118	101
Pecos.....			120	107	120
Total				1,817	2,018
Line sweepers (special duty):					
Sandpiper (air tender, Atlantic).....			45	69	45
Teal (air tender, Atlantic).....			45	63	45
Gannet (air tender, Pacific).....			45	55	42
Falcon (submarine salvage).....			54	59	54
Cormorant (Bureau of Ordnance).....			54	63	54
Swallow (thirteenth naval district—Alaska com- pass calibration).....			41	44	41
Total				353	281
Line force:					
Atlantic—					
Chewink.....			54	46	54
Curlew.....			54	44	54
Lark.....			54	44	54
Mallard.....			54	52	54
Pacific—					
Penguin.....			54	51	54
Seagull.....			54	57	54
Whippoorwill.....			54	22	54
Tanager.....			54	52	54
Asiatic—					
Finch.....			54	68	54
Bittern.....			54	47	54
Total				483	540
Towing:					
Atlantic—					
Bobolink.....			45	45	45
Robin.....			45	48	45
Vireo.....			45	49	45
Total				142	135
Pacific—					
Rail.....			45	46	45
Quail.....			45	68	45
Brant.....			45	49	45
Cardinal.....			45	48	45
Kingfisher.....			45	47	45
Partridge.....			45	47	45
Tern.....			45	47	45
Following listed in ships' data book as shown below—					
Challenge (listed under Tugs (fleet), see Tugs).					
Genevieve (listed under Tugs (fleet), see Tugs).					
Lykens (listed under Tugs (fleet), see Tugs).					
Menota (listed under Tugs (district), see Tugs).					
Undaunted (listed under Tugs (fleet), see Tugs).					
Total				352	315

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922	
	Complement.	On board July 1.	Complement.	On board Feb. 1.
Converted yachts and patrol vessels:				
Advance (tug).....			** 8	
Hawk.....	38		** 6	7
Herreshoff No. 323.....			** 12	12
Isabel.....			53	94
Mayflower.....	172	159	160	159
Nokomis.....			66	86
Porpoise (tug).....			** 23	
Scorpion.....	80		132	138
Shady Side (ferry).....				
Delaware S. P. 47.....			(**)	10
Sylph.....	28	79	32	32
Vixen.....	74		72	76
Total.....				592
Motor patrol boats:				
Asp.....			(**)	4
Clarinda (sixth naval district).....			(**)	8
Constance II (first naval district).....			(**)	7
Privateer.....			(**)	8
Zumbrota.....			(**)	5
Tugs:				
Contocook (fleet).....			39	49
Montcalm (fleet).....			39	37
Napa (fleet).....			39	40
Ontario (fleet).....	49	51	54	68
Osceola (fleet).....	27	31	34	36
Potomac (fleet).....	36	38	42	42
Somona (fleet).....	49	51	54	54
Tadousac (fleet).....			39	39
Algoma (fleet).....			** 30	
Allegheny (fleet).....			** 24	
Catawba (district).....			** 13	
Cayuga (district).....			** 8	
Chemung (fleet).....			** 20	
Mendota (ex-Concord) (district).....			** 20	
Grampus.....			** 19	
Hercules (district).....	8		** 8	
Iuka (fleet).....			** 39	
Iwana (district).....	8		** 8	
Iroquois (fleet).....	34		** 20	
Kalmia (fleet).....			** 39	
Keosauqua (fleet).....			** 39	
Kewadin (fleet).....			** 30	
Koka (fleet).....			** 30	
Lively (district).....			** 8	
Mahopac (fleet).....			** 30	
Massasoit (district).....	8		** 8	
Modoc (district).....			** 8	
Mohave (fleet).....			** 20	
Mohawk (district).....	8		** 8	
Narkeeta (district).....	8		** 8	
Nausett (district).....			** 8	
Navajo (fleet).....			** 26	
Navigator (district).....			** 12	
Nottaway (district).....			** 9	
Patapsco (fleet).....	45		** 30	
Patuxent (fleet).....	46		** 30	
Pawtucket (district).....	8		** 8	
Penacook (district).....	8		** 9	
Pentucket (district).....	8		** 8	
Pinola (fleet).....			** 30	
Piscataqua (fleet).....	45		** 44	
Rocket (district).....	8		** 8	
Saco (district).....			** 9	
Sagamore (fleet).....			** 20	
Sciota (fleet).....			** 20	
Sebago (district).....			** 9	
Sunnadin (fleet).....	49	51	** 39	
Tatnuck (fleet).....			** 39	
Tillamook (fleet).....			** 12	
Triton (district).....			** 12	
Harbor tug No. 49.....			** 8	
Harbor tug No. 50.....			** 8	

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Tugs—Continued.					
Harbor tug No. 61.....			** 8		
Harbor tug No. 67.....			** 8		
Harbor tug No. 69 (lent to marines).....					
Harbor tug No. 71.....			** 8		
Harbor tug No. 72.....			** 8		
Harbor tug No. 73.....			** 8		
Harbor tug No. 81.....			** 8		
Motor tug No. 86.....			** 4		
Motor tug No. 90.....			** 7		
Motor tug No. 93.....			** 2		
Motor tug No. 92.....			** 8		
Motor tug No. 98.....			** 4		
Impicus (fleet).....			** 30		
Unadilla (district).....			** 11		
Vigilant (district).....			** 8		
Wahnetta (district).....			** 8		
Wicomico (ex-Choctaw) (district).....	8		** 8		
Wompatuck (district).....			** 18		
Additional tugs not carried in Paymaster Gen- eral's report—					
Bay Spring (fleet).....			** 24		
Challenge (fleet).....			** 14		
Lykens (fleet).....			** 30		
Undaunted (fleet).....			** 22		
Advance (district).....			** 8		
Sotoyoma (district).....			** 8		
Total.....				365	340
Special type:					
Aroostook (mine layer).....			250	240	250
Baltimore (mine layer).....	320	313	334	301	334
Black Hawk (destroyer tender).....			440	349	440
Shawmut (mine layer).....			369	314	369
Vestal (repair ship).....	230	285	430	357	430
Wright (aircraft tender).....			286	390	286
Total.....				1,951	2,109
Naval Overseas Transportation Service vessel:					
Argonne.....			222	211	222
Unserviceable for war purposes:					
Old Constellation.....			(**)	17	
Old Constitution.....			(**)	5	
Hartford (receiving ship).....		78	(**)	75	
Philadelphia (receiving ship).....		35	(**)	109	
Reina Mercedes (receiving ship).....		91	(**)	91	
Southery (receiving ship).....		55	(**)	47	
Total.....			(**)	342	
Bureau of Fisheries:					
Albatross.....	75		81		81
Fish Hawk.....	44		44	44	44
Total.....				44	125
Ex-foreign:					
Bath.....			88	112	88
Beaufort.....			72	71	72
Black Hawk.....			(¹⁰)	(¹⁰)	(¹⁰)
Bridgeport.....			520	651	520
Camden.....			344	378	347
Kittery.....			87	113	84
Newport News.....			113	138	113
Pensacola (will be station ship Guam).....			110	111	
Rappahannock.....			268	235	268
Savannah.....			338	308	338
Total.....				2,117	1,830

¹⁰ Shown under "Special type."

List of vessels to be in commission after June 30, 1922—Tabulated in accordance with classification of annual report of the Paymaster General of the Navy for the fiscal year 1921—Statement 4—Continued.

Vessels.	1916		1922		Proposed 1923 al- lowance.
	Comple- ment.	On board July 1.	Comple- ment.	On board Feb. 1.	
Miscellaneous:					
Nitro (ammunition ship).....			177	217	177
Pyro (ammunition ship).....			177	214	177
Capella.....			91	81	91
Gold Star.....			97		97
Sirius.....			91	41	91
Vega.....			91	81	91
Regulus.....			91		91
Antares.....			91	26	91
Procyon.....			91	17	91
General Alava.....	88		54	19	88
Total.....				706	1,061
District craft, miscellaneous, not listed in statement 4 of the Paymaster General's report:					
Dart.....				** 10	
Leslie.....				** 11	
Castro.....				** 6	
Pinafore.....				** 4	
Ambulance boat No. 1.....				** 4	
Ambulance boat No. 2.....					
Transfer.....				** 7	
Cyane.....					
Faithful.....					
Nave.....				(*)	
Narragansett.....					
Total.....				42	

SUMMARY OF PROPOSED ALLOWANCE OF MEN AFLOAT ON VESSELS LISTED ABOVE.

Total on vessels.....	20, 25
Flag complement.....	1, 12
Fleet aviation.....	1, 00
Grand total.....	22, 37
Total aboard vessels listed above on Feb. 1, 1922.....	20, 25

Mr. KELLEY. That list of 18 ships constitutes the treaty allowance on the basis of 5 to 3 as to Japan, does it not?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Work on the other ships on this list designated as battleships, except the *West Virginia* and the *Colorado*, under the terms of the treaty, is to be discontinued?

Admiral COONTZ. Except the *Colorado* and one other to be selected, either the *Washington* or the *West Virginia*.

Mr. KELLEY. Then, so far as personnel is concerned, for the coming year it would not matter which it was, the *Washington* or the *West Virginia*?

Admiral COONTZ. No, sir.

Mr. KELLEY. So that we can disregard all the other battleships, so far as personnel is concerned?

Admiral COONTZ. In the first line; yes, sir.

SECOND LINE BATTLESHIPS THAT CAN BE KEPT IN COMMISSION.

Mr. KELLEY. And in the second line, too. The second line is to be scrapped, is it not?

airal COONTZ. I would like to run down these figures and to attention to some of these ships. The *Illinois*, under the treaty, saved. It is now the training ship for the naval militia of the of New York, and is in commission in New York City. The *S. Ohio*, the experimental ship, is now in commission and will be out of commission and scrapped. The U. S. S. *Connecticut* the flagship of the train and base force of the Pacific Fleet. I be relieved, if the treaty is ratified, and scrapped under the of the treaty.

KELLEY. There is no special need of detailing them as long as are out so far as personnel goes.

airal COONTZ. Yes, sir; because they must be replaced with hing. Every one doing important duty must be replaced.

KELLEY. They will not have to be replaced, so far as battle- are concerned?

airal COONTZ. No, sir.

KELLEY. Then, let us stick to the battleships. If they are to laced by some other kinds of ships that we will come to later, will take them up then. The 18 battleships are all that we o consider in this connection.

airal COONTZ. Except as to the note regarding the *Illinois*, *regon* does not appear here.

KELLEY. Is the *Illinois* assigned to the New York militia?

airal COONTZ. Yes, sir.

KELLEY. Do they pay all of the expenses?

airal COONTZ. No, sir.

KELLEY. We bear all of the expense of it?

airal COONTZ. We bear the absolutely necessary expense of of the vessel in fit condition for the duty assigned.

KELLEY. How long have they had the *Illinois*?

airal COONTZ. Since October 25, 1921. She replaced the *Grante*, which burned up.

KELLEY. Before that she was out of commission?

airal COONTZ. She was out of commission.

KELLEY. We did not spend any money on her to speak of in so I imagine she was out of commission.

airal COONTZ. Yes, sir.

KELLEY. You understand that what we want is a table showing mplement of each ship for 1922 and for 1916 in parallel col-

You might take some particular date in 1916, say, July 1. ant the statement to show the actual complement on the ships e dates. I suppose, of course, that varies widely.

airal COONTZ. That would not affect the complements.

KELLEY. What I want is a statement showing the actual num- ried on the ships in 1916.

etary DENBY. And not the authorized complement. That not vary very much, except as a ship might lose men here ere.

KELLEY. The Secretary of the Navy might reduce the comple- t any time by 100 or 200 if he saw fit.

etary DENBY. When you figure the number of men on a ship at any one date, it would probably be equivalent to the - at any other date.

Mr. KELLEY. I think the admiral knows what I want. I want a fairly accurate comparison of the number of men that you are asking for the coming year with the number of men that you actually had on those various ships at some particular date, say, July 1, 1916, and I think that, perhaps, it would be well to have a third column giving the actual number of men on each ship as of some particular date this year.

Secretary DENBY. We could take the same date in each year.

Mr. KELLEY. Make it a fair comparison with the number of men carried in 1916.

Colonel ROOSEVELT. We could take the 1st of July, 1916, and the 1st of July, 1921.

ARMORED CRUISERS.

NUMBER TO BE KEPT IN COMMISSION.

Mr. KELLEY. The next is armored cruisers: Do you intend to keep the *Frederick* in commission next year?

Admiral COONTZ. I would like to state that this way: The *Huron* is now the flagship of the Asiatic station, and she will have to be relieved this calendar year, because she will need repairs and will have to come home. Therefore, one of the others would have to go to relieve her, but that would be an exchange. The *Pueblo*, the receiving ship at New York, has a small number of men on board. The *Seattle* has been chosen to relieve the *Connecticut* and will be placed in commission after the treaty is ratified. The *Utah* will have to be relieved in Europe, so that she may come home and join the battle fleet. That would mean three in commission, and one in a receiving ship. We have not fixed on which three will relieve the others but will pick the ones which will be most economical. The *Memphis* was wrecked several years ago.

Colonel ROOSEVELT. Could you not state it this way: There are 11 in question, and out of the 11 7 will be put out of commission, 1 used as a receiving ship in New York, and 3 will be in service?

Admiral COONTZ. Yes, sir. Two of those vessels have been sunk, however, already—the *Memphis* and *San Diego*.

Colonel ROOSEVELT. They are not in the list of 11 that I speak of.

Admiral COONTZ. They are in this list I have here.

Mr. KELLEY. There are only 10 in this list.

Admiral COONTZ. Yes, sir; two of them have been sunk.

Mr. KELLEY. Which two?

Admiral COONTZ. The *Memphis* and the *San Diego*. The *Memphis* went down at San Domingo City, and the *San Diego* was blown up by a mine during the war.

Mr. KELLEY. Out of the other eight, you intend to keep three in commission?

Admiral COONTZ. Yes, sir; three in commission and one as a receiving ship.

DUTIES OF FLAGSHIP OF TRAIN.

Mr. KELLEY. What are the duties of the *Connecticut* now?

Admiral COONTZ. The duties of the *Connecticut* are those of the ship of the Pacific train and of the base force in the Pacific.

Mr. KELLEY. Just explain that a little more, in an untechnical way. Admiral COONTZ. I have a statement of that here.

Mr. KELLEY. Let me ask you this, and perhaps we can make it shorter: If I have the right idea the flagship of a train is the ship that carries the office end of the outfit?

Admiral COONTZ. Yes, sir. I can give it in a few words. It is one of the necessary ships in connection with the train, and the service performed by it corresponds with the service performed by the Quartermaster Corps of the Army.

Mr. KELLEY. That is far enough. I think I understand it.

Colonel ROOSEVELT. The flagship is the office of the train, and the others are supply ships.

Mr. KELLEY. Is there not some ship in the train that would be large enough to accommodate the officers, or to handle the executive work, without having the *Connecticut* along?

Admiral COONTZ. I do not believe it would pay to do so, because the others would be moving. They are cargo ships, or vessels of that character, that have specific duties.

Mr. KELLEY. I suppose it might happen that the headquarters might find itself separated from the rest of the train, if you did not have a ship especially for headquarters?

Secretary DENBY. When I was with the fleet at Guantanamo Bay last spring I observed that situation, and I know that you could not use those ships for carrying that personnel. Those ships were carrying supplies, and some of them were repair ships, or floating machine shops. They are given up entirely to the purposes for which they are intended, and no staff of any kind could be carried on them unless the ships were especially designed for that purpose.

COST OF OPERATING STEAMSHIP "FREDERICK" FOR 1921.

Mr. KELLEY. The *Frederick* cost last year \$1,213,957.60.

Admiral COONTZ. Yes, sir. I would like to insert a statement of the record showing why the *Frederick* did cost that much money.

NOTE.—The U. S. S. *Frederick* was employed from July 1, 1920, to June 30, 1921, as follows:

July 1 to 17, 1920, at the navy yard, Philadelphia; July 17 to October 13, 1920, carrying of American athletes to Olympic games in Europe; October 13 to December 9, 1920, at Philadelphia; December 1 to 13, 1920, en route Canal Zone; January 16, 1921, relieved *Glacier* at flagship of train, Pacific, at Canal Zone; January 21 to February 23, 1921, cruise to Valparaiso and return; February 23 to March 14, 1921, en route Balboa to Bremerton; March 14 to April 25, 1921, at Bremerton; April 25 to June 30, 1921, visit of Pacific coast ports.

It should be noted that from July 17 to October 13, 1920, the *Frederick* was employed carrying the American naval athletes to Europe to participate in the Olympic games at Brussels. On this cruise she was manned to a large extent by naval reservists for training, who volunteered for this training cruise. She carried personnel in excess of complement on this cruise which would account for heavy expenditure for "Pay of the Navy."

It should also be noted that the employment of the *Frederick* during the fiscal year 1921 involved long trips at sea, which accounts for heavy expenditures under "Fuel transportation." The heavy expenditures under "Construction and repair" "Engineering" can be accounted for by the necessary repairs to fit the vessel for navy naval service after being used for transporting troops returning from Europe after the armistice and repairs necessary after strenuous war and transport service, in repairs could not be made, because it was necessary to keep the vessels running on only sufficient repairs to keep them going.

GUN POWER AND MILITARY VALUE OF ARMORED CRUISERS.

Mr. KELLEY. You propose to have 3 out of 10 of these vessels in commission?

Admiral COONTZ. There will be four including the receiving ship.

Mr. KELLEY. Counting the receiving ship at New York, there would be four.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The armored cruisers came along in the last decade, did they not?

Admiral COONTZ. They were commissioned between 1905 and 1908. They are pretty good ships, so far as gun power is concerned.

Mr. KELLEY. They are still good ships?

Admiral COONTZ. Yes, sir.

Secretary DENBY. The last one was built in 1908, or was put in commission in 1908.

Mr. KELLEY. So that these ships have some military value.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is their gun power?

Admiral COONTZ. They carry four 8-inch guns and fourteen 6-inch guns.

Mr. KELLEY. So you have here in service a flagship for your train, which is more or less a supply part of the fleet, but it would have a military strength also?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There are three to be put in commission?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many of these ships has Japan?

Colonel ROOSEVELT. Japan has five of that type.

Mr. KELLEY. The armored battle cruiser will be an offset to some of our battleships, or that was the understanding.

Admiral COONTZ. Yes, sir.

SHIPS STATIONED IN EUROPEAN WATERS.

Mr. KELLEY. What was the duty of the other one? Was it to relieve the *Utah*?

Admiral COONTZ. Yes, sir; to relieve the *Utah*.

Mr. KELLEY. One of these others was to relieve the *Utah*, and I want you to tell me why it will have to be relieved?

Admiral COONTZ. The *Utah* is a battleship which we had expected to put in the second line before long, having planned to fill the fleet up with the new ones as they came on; but now, being restricted in that, the *Utah* is one of the eighteen which will be retained and we want to keep her with the battleship force for drills and maneuvers.

Mr. KELLEY. Where is she now?

Admiral COONTZ. At Algiers.

Mr. KELLEY. Have you got to send another ship there?

Admiral COONTZ. If we relieve the *Utah* we wish to send a ship in her place.

Mr. KELLEY. What is the necessity for leaving a ship at Algiers?

Admiral COONTZ. The State Department has asked us to have one here for the present. This ship is the flagship of the European station.

Secretary DENBY. The *Utah* is the only ship of any size in European waters. The only other vessels over there are the destroyers.

Admiral COONTZ. Just at the present time she happens to be at Algiers.

Mr. KELLEY. Would not a smaller ship answer the purpose?

Admiral COONTZ. A smaller ship would not answer the purpose very well, for this reason, that a small ship that we have would not show up so well with the British, French, and other squadrons now in European waters. This vessel represents the United States, and we have only one. On the other hand, the British have a whole squadron there. We think that an armored cruiser would best show up our Nation and prestige, not alone along military lines, but for aiding commerce. It is important that we have a fair-sized ship for that service.

Mr. KELLEY. I rather agree with you that where the purpose of a ship is to reflect the dignity of the country, that it ought to be a pretty good ship.

Admiral COONTZ. The commander in chief in European waters has even asked for one large vessel to stay at Constantinople all the time, but we have refused it, and have steadily reduced that station. But I will take that up later.

Mr. KELLEY. Of course, there is no military need of a ship at Algiers.

Admiral COONTZ. No; she merely happens to be there to-day; she has been at various points; she has been in the North Sea, Baltic, and all European waters.

Secretary DENBY. May I tell you why she is at Algiers? She is here at the request of the State Department. The French President is having a review off Algiers, and the *Utah* being the only ship of any size we have on the European station, she was sent to participate in that review. She is also the flagship.

Mr. KELLEY. It is an evidence of friendship and good will between these countries?

Secretary DENBY. Yes.

Mr. KELLEY. Which is one function of the Navy.

Secretary DENBY. But she is not to be replaced by a battleship.

Admiral COONTZ. No; she is to be replaced by an armored cruiser.

Secretary DENBY. But still a ship larger than a destroyer should be on the European station.

Mr. KELLEY. You do not think, Admiral, that the retention of one battleship, to continue in this service, would be a good thing?

Admiral COONTZ. No, sir.

Mr. KELLEY. You would have the ship in commission and all ready for work of any kind that it was necessary for her to do, and that being the case what would be the difference whether it was over there or over here?

Admiral COONTZ. There are two reasons. In case war came suddenly we would be shy one battleship, if we got into war in that direction; second, it is necessary nowadays to have the training with

the fleet, so that each battle unit can be fully ready to take its place in the battle line. As you know, battles are now very short lived.

Colonel ROOSEVELT. May I interpolate—

Mr. KELLEY (interposing). I think it would be a little better if we should go ahead with one witness and not have interpolations, because it mixes us up, but you may make whatever statement you desire.

Colonel ROOSEVELT. You said she would be there ready for anything, but the trouble is that she would not be ready for anything, because, in order to have ships ready for anything, they should be concentrated with their fighting units. We only have 18 left, under the treaty, and if we are going to have our 18 where they are ready for anything, they have got to be together.

Mr. KELLEY. You have not got them together, anyhow; you have half of them in the Pacific.

Colonel ROOSEVELT. But they are together in units.

Mr. KELLEY. That is, some of them are together.

Colonel ROOSEVELT. The complete units are together.

CRUISERS, FIRST CLASS.

Mr. KELLEY. I can see some force in the suggestion. Now, the cruisers of the first class. Which ones are we going to have next year?

Admiral COONTZ. We are going to have of those on that list the *Charleston* and the *Rochester*, the *Charleston* being the flagship of the destroyer force in the Pacific, and the *Rochester* having the same position in the Atlantic.

Mr. KELLEY. How many destroyers are attached to the *Charleston*, if I may speak that way, Admiral?

Admiral COONTZ. Is the number 100?

Captain KALBFUS. About 108 now, sir.

Mr. KELLEY. How many are attached to the *Rochester*?

Captain KALBFUS. The 108 includes 18 in China, which should be taken out.

Admiral COONTZ. We will take them out; that would be 90. How many on this side with the *Rochester*?

Captain KALBFUS. One hundred and twenty-two with *Rochester* at *Charleston*, plus the active squadron of 19 with the Atlantic Fleet, in all 141.

Mr. KELLEY. They are large ships, and in 1921 the *Charleston* cost \$1,112,110 and the *Rochester* \$1,154,872. Would not a smaller vessel answer your purposes?

Admiral COONTZ. A smaller vessel would answer those purposes if it had the proper characteristics, but until we get light cruisers of 33 or 34 knots we must do the best we can.

Mr. KELLEY. Do you regard these as good military ships?

Admiral COONTZ. Yes, sir; they are still fighting ships.

Mr. KELLEY. What is their gun power?

Admiral COONTZ. The *Charleston* has twelve 6-inch 50-caliber guns besides various secondary guns, antiaircraft guns, and saluting guns. The *Rochester* has four 8-inch 45-caliber guns, eight 5-inch 50-caliber guns, and various antiaircraft guns and saluting batteries.

Mr. KELLEY. Was the *Rochester* rebuilt?

Admiral COONTZ. The *Rochester* is the old *New York*. During recent years her gunnery installation was completely overhauled and brought up to date.

Mr. KELLEY. So while she was first put into commission in 1893, she has been fixed up since then?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And she has been made quite a modern ship?

Admiral COONTZ. I would not call her an extra modern ship, but she will do until we can do better.

Mr. KELLEY. And those other three you will put out of commission entirely, or have they already gone?

Admiral COONTZ. The old *Milwaukee* was sunk some years ago; the *St. Louis* is out of commission and possibly will be sold; the *Woklyn* has already been sold.

CRUISERS, SECOND CLASS.

Mr. KELLEY. Now the cruisers of the second class.

Admiral COONTZ. Of the cruisers of the second class the *Columbia* and *Minneapolis* have been sold; the *Chicago* is the station ship at Honolulu; she is no longer of military value and is now immobile—she has had her propellers have been removed; the *Olympia* is the flagship of the Atlantic train; she is to be placed out of commission when the fleet comes north in May, and we expect the State of Washington to take some action regarding her preservation as a relic. Of course, as you know, she was the flagship of Admiral Dewey at the Battle of Manila Bay; the *Omaha* and *Milwaukee* are in process of building and will be completed within a few months, when they will go into commission. Those two and the *Richmond* will be the first of the new scout cruisers to be completed.

Mr. KELLEY. Those two are entirely new?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And they are the only ones you intend to have in this group?

Admiral COONTZ. No, sir; also the *Richmond*.

Mr. KELLEY. Have you another new one?

Admiral COONTZ. Yes, sir; the *Richmond* is about complete.

Mr. KELLEY. Then there are three new cruisers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And all the others go out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Now, cruisers of the third class.

Secretary DENBY. May I make a correction?

Mr. KELLEY. Yes.

Secretary DENBY. Not all of those cruisers go out because, as has been stated, the *Chicago* is being used as a station ship but with her propellers off, and I presume she will be carried on the navy list.

Admiral COONTZ. But Admiral Washington would call her on the navy list. Of the cruisers of the third class—

Mr. KELLEY (interposing). The *Columbia* is sold, you said?

Admiral COONTZ. Yes, sir; and the *Minneapolis* is sold.

Mr. KELLEY. The *Olympia* will be turned over to the State of Washington under proper arrangements?

Admiral COONTZ. We hope to do that.

Mr. KELLEY. And the other three are new?

Admiral COONTZ. Yes, sir.

CRUISERS, THIRD CLASS.

(See p. 241.)

Mr. KELLEY. Now, cruisers of the third class.

Admiral COONTZ. Of the third class the *Albany* is on duty in China; she is very old and we expect to relieve her with the *Sacramento* some time within the next six months.

Mr. KELLEY. Where do you find the *Sacramento* on the list?

Admiral COONTZ. We have not gotten to the *Sacramento* yet; it is further down the list. The next is the *Anniston*; she was sold November 14, 1919.

Mr. KELLEY. Is the *Sacramento* one of your new ones?

Admiral COONTZ. Yes, sir; comparatively new; she was completed in 1914.

Mr. KELLEY. You intend to keep the *Albany* in commission until you get a new one to take her place?

Admiral COONTZ. Yes, sir; until the *Sacramento* can get out there.

Mr. KELLEY. So the *Albany* would probably require as many men as the new one, and you would simply be exchanging crews?

Admiral COONTZ. No; the new one will require fewer men, but it will be necessary to have a crew take her out and make the start. The *Sacramento* is a gunboat about 6 years old, and we got the *Albany* in the Spanish War.

Mr. KELLEY. Then the *Albany* can go out when a gunboat takes her place?

Admiral COONTZ. Yes, sir; but it will take at least six months before that change is made.

Mr. KELLEY. The *Anniston* is evidently out of commission already.

Admiral COONTZ. The *Anniston* was sold November 14, 1919.

Mr. KELLEY. Is that one of the new scout cruisers?

Admiral COONTZ. No, sir.

Captain DAY. The *Anniston* is the old cruiser *Montgomery*, I think.

Mr. KELLEY. You do not intend to keep her in commission, whatever she is?

Admiral COONTZ. No, sir.

SPECIAL SERVICE SQUADRON.

Mr. KELLEY. What about the *Birmingham*?

Admiral COONTZ. She is the flagship of the special service squadron and we expect to keep her in commission for an indefinite period.

Mr. KELLEY. What is the special service squadron?

Admiral COONTZ. The special service squadron is the squadron that we keep in South American and Central American waters for the promotion of friendly relations with those Republics. It is composed at present of five vessels, of which two are now on the west side of Nicaragua, one was sent to Honduras within the last week at the request of the State Department, one is at Colon, and the other, I think, is at Key West. Those vessels, except the flagship, are of

Tacoma type; part of them are out of commission, and we must keep five in commission.

Mr. KELLEY. What is the displacement of the *Birmingham*?

Admiral COONTZ. The *Birmingham* has a displacement of 3,750 tons. I would state at this point that the two ships we are sending to China are being taken from the special service squadron, that is, the special service squadron is being reduced; there will be a net reduction of two vessels.

CRUISERS, THIRD CLASS.

(See p. 240.)

Mr. KELLEY. You will notice that this list is quite an expensive list.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. In comparison with its military value in case of actual hostilities?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many do you want to keep of this list altogether? Admiral COONTZ. We wish to keep five out of the total number, getting rid of the *Albany* and *New Orleans*, as I said, when they are relieved. The five to be kept running are the *Birmingham*, the *Cleveland*, the *Denver*, the *Galveston*, and the *Tacoma*; they are in commission. The others are out of commission at the present time and some of them have been sold, namely, the *Cincinnati*, the *Marblehead*, the *Anniston*, and the *Raleigh*. That leaves a very few like the *Chester*, the *Chattanooga*, and the *Des Moines* to be retained out of commission for emergencies. In other words, of that total number within six months there will only be five left in commission.

Mr. KELLEY. So you are asking the personnel for five in full commission? Will it take some men on the others, or will you just lay them up?

Admiral COONTZ. It will take no men at all after we get the *Albany* and the *New Orleans* out of commission.

Mr. FRENCH. What about the *New Orleans*?

Admiral COONTZ. The *New Orleans* is to be relieved by the *Asheley*, a gunboat, and the *New Orleans* will be brought home, decommissioned and sold.

Mr. KELLEY. Did you say these two would go to Asiatic waters?

Admiral COONTZ. No; I said these two in Asiatic waters would be relieved by two we will find listed further down.

Mr. KELLEY. I think if the representatives of the Bureau of Navigation are now here we can carry this right along together. Captain Williams, we want the number of men that are required for each of the battleships for next year, beginning with the *Delaware*?

Captain WILLIAMS. May I submit this paper, prepared for the use of the Naval Committee? It does not give the information exactly in that form.

Admiral COONTZ. Captain, is that on the basis of the Secretary's action about 95 per cent of the complement?

Captain WILLIAMS. No, sir, it is not; that is the printed list of the complement of officers and men, together with the number of officers and number of men on board.

Mr. KELLEY. Admiral Coontz, you are familiar with the list that was submitted to the Naval Committee, I imagine?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Is the list on page 202 of this paper the same list of battleships that you have testified will be kept in commission next year?

Admiral COONTZ. There are two changes, Mr. Kelley; there are two vessels there too many; there should be 18 instead of 20.

Mr. KELLEY. The *West Virginia* is not built yet, and what is the other one?

Admiral COONTZ. The *Colorado*.

Mr. KELLEY. Then that makes a difference of about 2,500 men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. With that correction, Captain, I want you to put in the record at this point, following the battleships to be kept in commission, the number of men actually carried on these ships if they were in the Navy in 1916, say, on the 1st of July, 1916, the number of men carried on each ship; also the number of men carried the 1st of July last, and a third column showing, I suppose, this figure here.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. The number that you ask for next year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I would like that developed for each of the groups of ships. For instance, the first group of ships will be the battleships by name, according to Admiral Coontz's testimony as to the ships that are to be in commission next year, with the number of men carried upon them in 1916, the 1st of January, 1922, and the number you expect to ask to have carried next year. I want that carried right straight down through all these different groups of ships. Of course when it comes to destroyers, you can make an average; you do not need to put down the number for each ship because, I suppose, they are substantially the same and there are so many of them.

Secretary DENBY. I know you want to keep the record clear, and think those two new battleships, the *Colorado* and either the *West Virginia* or *Washington*, should also be carried at their probable complement because they will certainly be added to the Navy list during the next fiscal year.

Mr. KELLEY. But when you do that you take out two and you take the personnel off of them.

Secretary DENBY. But we want to show the difference.

Mr. KELLEY. We do not want any element in here where there is a duplication of men.

Secretary DENBY. Not at all; but I merely meant to say that there are greater ships.

Mr. KELLEY. You see, you are not required to carry 20 ships under this treaty.

Mr. BYRNES. I think this is what the Secretary has in mind, that the two new ships will require a complement different from the old ships.

Secretary DENBY. They are very much larger and I wanted to show the difference; that is all.

Mr. BYRNES. So you ought to put the two new ones in.

Mr. KELLEY. On the *Delaware* you have 1,196 and on the *Colorado* you have 1,266; about 70 more.

Secretary DENBY. Well, whatever it is. I know you want to get the record correct as to the personnel.

Mr. KELLEY. You understand what I want, Captain?

Captain WILLIAMS. I will have that prepared for the record.

MONITORS.

Mr. KELLEY. And I am glad you are here so that we can take up matters as we proceed from this point on. Now, the monitors.

Admiral COONTZ. The monitors all go off for good, except the *Cheyenne*. The *Cheyenne* is training naval reservists.

Mr. KELLEY. Why not make a clean sweep of the monitors?

Admiral COONTZ. Mr. Kelley, the question of the reservists depends entirely on Congress this session. As long as the present law stands it is our duty to have the ships and train them. If they are polished and no appropriation is made, we will quit; but if you pass the new law which has been prepared, we would still have to train the reservists.

Mr. KELLEY. You would not need a monitor for them, would you?

SHIPS FOR TRAINING NAVAL RESERVES.

Admiral COONTZ. We have applications for very many more than we have. We are training reservists all the way from Duluth, Chicago, and Detroit down to the Atlantic and down to the Gulf and it on the west coast, and the Secretary has had to turn down numerous applications. We do the best we can in the small cities to train them and carry out the law.

Mr. KELLEY. Can you not do the training of these boys on ships that are of some military value and not have so many in commission for that special purpose?

Admiral COONTZ. We would like to do so if we had the ships of military value and could afford to pay the money which is necessary to get these people from the inland cities to the coast and back.

Mr. KELLEY. Where is the *Cheyenne*?

Admiral COONTZ. She is at Baltimore.

Mr. KELLEY. It seem to me you could get a boat to Baltimore to take her place, as no doubt she is very old.

Secretary DENBY. Yes; she was built in 1902.

Mr. KELLEY. What sort of a ship is a monitor now?

Admiral COONTZ. Well, a monitor is a fairly old craft, but these old craft are all we have on which to give reservists their training; we do not take the newer vessels for that purpose, and we have recently taken the *Tallahassee* away from Charleston, S. C., and put her out of commission. Our carrying this on, of course, is under the mandate of the law, and we, of course, do the best we can under the circumstances. You must remember that we had at one time about 200,000 reservists to train, which would take a large number of ships. We did it, but recently about 218,000 of them were disenrolled, but many came back voluntarily and are serving free, and we have to do the best we can to give them what training we can.

Mr. KELLEY. Why do you not put them on your regular ships in summer?

Admiral COONTZ. Well, there are a number of reasons, Mr. Kelley. One is that the reservists can not get away for the necessary time; also it would cost a great deal of money to use the regular ships. If you will consider the number and residences of these men who are affected I think you will see the thing to do is to keep small ships in the various ports that do not move much and do not use much fuel and only take a few men to man them. We had a very sad experience with that about a year ago, when we put some of them aboard one of the ships of the fleet; it moved about 3,000 miles away and then was held temporarily, due to an emergency which arose. There the reservists were and they were all anxious to get home to their jobs, and we had to use a remarkable amount of exertion to get them back. Of course if there is anything we can find that will replace the *Cheyenne* we are going to do it; we are watching all the time, and, as I say, we have recently got rid of the *Tallahassee*.

Captain WILLIAMS. In many cases these ships serve as quarters for these reservists.

Admiral COONTZ. They have their drills on board; they are used as though they were armories.

Mr. KELLEY. You propose to take out all of the monitors except the *Cheyenne*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many men will it take for the *Cheyenne*?

Captain WILLIAMS. She probably has a few ship keepers.

Commander LEAHY. She has 34 men.

Captain WILLIAMS. We had a singular experience with one of these monitors and I think we saved the upkeep of her for many years. A man named Isham wanted a test of some shells; we put a monitor in commission, took the Naval Committee down the bay and fired at his target. I think that cost about \$50,000 or \$60,000, but we demonstrated that Mr. Isham's contentions were not correct and put him out of commission.

Mr. KELLEY. And did not hurt the ship?

Captain WILLIAMS. We put the ship in commission and put Mr. Isham out of commission. They were then spoken of as being used for the defense of Washington; they carried some very excellent 12-inch guns and at that time there was doubt as to whether the defenses of the lower river were sufficiently strong, and it was perfectly possible to put these ships, drawing 13 feet of water, at the mouth of the Potomac. I do not know whether that condition obtains now.

Mr. KELLEY. You only want 32 men for these ships?

Captain WILLIAMS. Yes, sir.

DESTROYERS.

Mr. KELLEY. Go ahead with the destroyers.

Admiral COONTZ. The destroyer question is a pretty big question and within the past week the Secretary has made up his mind to ask the committee this: We have 315 destroyers built, 3 now building and 12 authorized but upon which work has not begun. Fourteen of those were changed into mine layers, leaving a total of 30. Twenty-one are of the second line and are out of commission. This leaves 280. The Secretary is going to ask the committee to keep 100 of these destroyers in commission with 90 per cent crews and 23

commission with 50 per cent crews, making 126 in commission and the rest out of commission. The fleet of 18 battleships calls for 22 destroyers, but the Secretary is reducing it to this number: fifty-seven with the Pacific Fleet, 19 with the Atlantic Fleet, 19 with the Asiatic Fleet, and 8 in Turkish waters.

Mr. KELLEY. How many men will that take altogether for these destroyers?

Admiral COONTZ. The complement is 114, and 90 per cent of that is 102. The complement of the others will be 57 men. That will be 103 at 102 men and 23 at 57 men, or a total of 11,817.

Mr. KELLEY. Let us see how many that is in men exactly; 103 with 102 men—that is about 10,000?

Captain WILLIAMS. Ten thousand five hundred and six men.

Mr. KELLEY. Ten thousand five hundred and six for the active destroyers. How many men for the 23 destroyers.

Admiral COONTZ. Fifty-seven on each, or a total of 1,311.

Mr. KELLEY. Could you reduce that a little bit without doing anybody any harm?

Admiral COONTZ. No, sir. We have studied that with the utmost care, and to keep the machinery in condition we have to have that number of men to prevent deterioration. We have tried it and we find that we could not do it.

The CHAIRMAN. You are asking for 11,817 men for the destroyers?

Admiral COONTZ. Yes, sir.

Mr. BYRNES. How many men do you want on the 23 destroyers? Do you want a complement of 57 men?

Admiral COONTZ. Yes, sir.

Mr. BYRNES. And how many for the other destroyers?

Admiral COONTZ. One hundred and three with 102 men.

Mr. KELLEY. How many destroyers has Japan? Colonel Roosevelt says 62.

Admiral COONTZ. Japan has 88 destroyers and 62 additional building or projected.

Mr. KELLEY. You are asking just about 5-3 on destroyers in active commission?

Colonel ROOSEVELT. It is 10-6. We are asking 103 to 62.

Mr. KELLEY. And 23 in part commission for good measure?

Admiral COONTZ. For the training and drilling of our younger officers and men as well as for their maintenance ready for any emergency and for replacements. We have found that the school at Annapolis is the best thing of that kind. Although the vessels are going out only 8 hours a month for training the officers and men, and training engineers out of them, and teaching them to handle the boats. I should also say that of the officers many are not graduates of the Naval Academy.

Mr. KELLEY. Please tell us how you are handling those so as to prevent any deterioration?

Admiral COONTZ. We expect to send a part of them to Philadelphia. We are trying to fix a place there for about 100 of them.

Mr. KELLEY. When you get the back basin cleaned out of your ships you will have room?

Admiral COONTZ. We will not have so much room. We are cleaning out the basin as fast as we can. The others will have to be placed out of commission in San Diego. The condition is so serious that

we have appointed a special board to consider every phase of it, how best to put them out of commission and to make sure that everything is all right. It will take a certain small number of men to look out for them. Their machinery, engines, and boilers will have to be most carefully attended to and the ships as thoroughly dried as is possible.

Mr. KELLEY. You grease them and shellac them and white lead them and then put a few men on board to watch them?

Admiral COONTZ. We will have a certain number of men attached to the whole group who will go over one after another. We have to watch out for freezing in the winter time. It is an expensive thing to put a destroyer out of commission. To take a destroyer from Charleston to Philadelphia and place her out of commission costs a couple of thousand dollars for fuel in addition to the material, white lead, etc, that has to go into the ship. The supplies and stores must be taken out. It is important to keep these destroyers in tiptop condition. They are the left hand of the fleet, the battleships being the right hand.

Mr. KELLEY. How did you arrive at the idea that you needed 103 in active commission?

Admiral COONTZ. We need 76 for the battleships.

Mr. KELLEY. Four times 18 is 72.

Admiral COONTZ. And a leader for each squadron of 18, making 19 in a squadron. We maintain a squadron in China. There are 8 in Europe which we can not take away. We have been trying a long time to reduce them and have reduced them from 18 to 8. That makes 103.

Mr. KELLEY. Did we have any ships in the eastern Mediterranean before the war?

Admiral COONTZ. I think we cleared everything out of the eastern Mediterranean about the 1st day of August, 1914, when the war broke out.

Mr. KELLEY. We got away from there?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What have we over there particularly to guard—our citizens?

Secretary DENBY. May I answer that question? It is a question of departmental policy.

Mr. KELLEY. Yes, sir.

Secretary DENBY. The reason those ships are kept there is partly to guard American interests in an area that is notoriously disturbed and in which American interests are jeopardized at all times. We are constantly asked by the Department of Commerce to aid in relaying radio messages and to aid in conducting refugees, passengers or released persons, and the Department of State also. We can not be entirely denuded of ships of war in all Europe, and those are what we have. It looks to me like a very small number.

Admiral COONTZ. There is one station ship in Constantinople, and two subchasers that we are trying to sell.

Colonel ROOSEVELT. You spoke of 23 destroyers that we had in half commission as being for good measure. The Japanese will complete, in the year 1922, 11 new destroyers which will go into commission, so they are not simply for good measure, they are for ratio.

Mr. KELLEY. When will they be done?

Colonel ROOSEVELT. In 1922.

Mr. KELLEY. What time?

Colonel ROOSEVELT. Within the next five or six months. They are practically completed.

Secretary DENBY. May I simply say, Mr. Chairman, that we have kept you informed of the number that we planned to put out of commission.

Mr. KELLEY. Yes; I had forgotten to ask you. When does this order take effect?

Admiral COONTZ. I am free to state that it will possibly take four months before the last one is out of commission. As I said, the utmost care has to be taken of each one. We can not make any mistake; they are too valuable.

Mr. KELLEY. It is your plan to reduce the destroyer force to 126 by the 1st of July?

Admiral COONTZ. We figure on the 15th of July, but it will be at the earliest practicable date.

Mr. KELLEY. But for purposes of calculation we can figure on 126 or the next year?

Admiral COONTZ. Yes, sir.

PLACES AND PLAN OF PUTTING DESTROYERS OUT OF COMMISSION.

Mr. BYRNES. These destroyers which you put out of commission, what do you do, tie them out like at Charleston?

Admiral COONTZ. If we leave them at Charleston, they will have to be moored in groups. If we can put them out of commission at Philadelphia, they will lie alongside of each other in the basin.

Mr. BYRNES. When you spread them out in the basin, as described, do you require many men to care for them?

Admiral COONTZ. Not very many.

Mr. BYRNES. Have you made any estimate as to how many?

Admiral COONTZ. Not yet, but the number will be small, because when the boats are thoroughly prepared before going out of commission the care-taking force will only have to inspect for deterioration and correct any defects that may be found.

Mr. BYRNES. Do you keep mechanics there greasing the machinery to prevent deterioration?

Admiral COONTZ. These men that stay there, the small number, will be destroyer men of the mechanical and electrical ratings who follow their business. They would be men who are getting toward the end of their career, and to give them a light job and to put the younger men to sea.

Mr. BYRNES. A few men to a ship could care for the machinery on a destroyer?

Admiral COONTZ. I think so.

The CHAIRMAN. The machinery will be overhauled before the vessel is laid up?

Admiral COONTZ. But some one has to go around to find and correct deterioration that may take place.

The CHAIRMAN. To see that the ice does not jam the ships, but you not have to overhaul the machinery more than once.

Mr. KELLEY. Why would it not be better to leave the ships down at Charleston; that is a warm climate?

Admiral COONTZ. That is a very hard question to decide. There are two things. One is the likelihood of storms and another is that it will probably take a larger number of men at Charleston. We can not leave vessels lying moored in the harbor without proper caretakers, and in Philadelphia we have the protected basin.

Mr. KELLEY. Is the fresh water an element to consider?

Admiral COONTZ. The fresh water in the basin is an element that will be considered and will have considerable influence on the decision. We may leave a part of them at Charleston.

Mr. KELLEY. Does not the back basin freeze up in winter?

Admiral COONTZ. Yes, sir. We may leave them at Charleston.

Mr. KELLEY. Charleston is on a river with fresh water?

Admiral COONTZ. The water at Charleston is brackish and there are strong tidal currents. The tendency of the plumbing to deteriorate is a little greater at Charleston, not much. We may leave them at Charleston or San Diego. We are pretty sure to leave some at San Diego.

NECESSARY COMPLEMENTS OF DESTROYERS.

Mr. KELLEY. I think I had it from some officer that 87 men was a good, fair complement for an active destroyer. What is your opinion?

Admiral COONTZ. My honest opinion is that 114 is the proper complement.

Mr. KELLEY. That is the maximum number for war time?

Admiral COONTZ. For economy the Secretary decided on 90 per cent, and those we do keep in commission we want right at the top of efficiency.

Mr. KELLEY. Does not the 114 include the 10 per cent extra carried for war purposes?

Admiral COONTZ. No, sir. We take 90 per cent of the regular complement that she should have at all times. She will go into war with 114 and more.

Mr. KELLEY. I thought that you only had 87 now?

Admiral COONTZ. Some of them have less than that, those in reserve. All those in China have 114. They are a long way from home and we have to keep the crews full.

The CHAIRMAN. Eighty per cent being 91, that would be more than they have now in time of peace when you really do not need the crews full, and it seems to me that 80 would be all that was necessary to keep them in tiptop order?

Admiral COONTZ. They have to cruise and go through their evolutions and drills, and we feel that as we have reduced them so greatly and as we have no light cruisers now, while the British have about 300,000 tons, that we must keep the destroyers up to snuff and the men well trained in case an emergency should occur, because we would have to deplete them to fill up the other destroyers. They are used for all sorts of duty, in scouting and screening, and have to be well up so that when we cut this large number we can better keep those we have left in good shape.

SUBMARINES.

Mr. KELLEY. We will pass now to the submarines.

Admiral COONTZ. I have the director of submarines here, if you would rather have him give the evidence.

Mr. KELLEY. I think you know all about the subject. You can tell on him if you get stumped.

Admiral COONTZ. The first one that I come to is the *D-3*, which is scheduled to go out of commission. I think it is marked in the book. The next is the *F-2*, scheduled to go out of commission; *F-3* scheduled to go out of commission.

Mr. KELLEY. I wonder if we can not shorten that. How many of these submarines do you propose to put out of commission because of old age? I suppose you would take out all of the A's, B's, and C's start with?

Admiral COONTZ. I can run down the line if you care to have me do so.

NUMBER AND COMPLEMENTS OF, TO BE KEPT IN COMMISSION, 1923.

Mr. KELLEY. What is the total number of submarines you desire to keep in commission for next year?

Admiral COONTZ. The total number of submarines to be kept in commission next year is 84 in full commission and 27 with two-thirds complements.

Mr. KELLEY. How many men will the 84 submarines take?

Commander LEAHY. 2,579.

Mr. KELLEY. How many men on a ship?

Admiral COONTZ. That is under the 90 per cent. It varies from 40 to the latter boats which run 42.

Mr. KELLEY. You have 84 submarines with a total number of how many men?

Captain WILLIAMS. Under the 90 per cent—

Mr. KELLEY (interposing). Never mind talking about that.

Captain WILLIAMS. Two thousand five hundred and seventy-nine men.

Mr. KELLEY. For 84 submarines?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And for those in two-thirds commission?

Captain WILLIAMS. Four hundred and thirty men.

Mr. KELLEY. Making a total of 3,009 for the submarines?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Now, please tell us why you need so many as 84 and 27 submarines?

Admiral COONTZ. Built and building we have 141.

Mr. KELLEY. You have only 111 here?

Admiral COONTZ. One hundred and forty-one is the total number.

Mr. KELLEY. But the 111 are all the submarines that you have of real value?

Admiral COONTZ. Yes, sir. The idea is this, when we introduce the new ones later—

Mr. KELLEY (interposing). You will take out some of these?

Admiral COONTZ. The older ones would go out.

Mr. KELLEY. One hundred and eleven would be the total number you expect to keep in commission next year?

Admiral COONTZ. Yes.

Mr. KELLEY. The A's, B's, and C's, that type, were built so long ago that they would not be very valuable?

Admiral COONTZ. There are the 15 S type submarine still to be completed, but they will not be ready to commission during the fiscal year 1923.

Mr. KELLEY. That is what I want to know, why you want to keep all the ships of this character that you have in commission?

Admiral COONTZ. I think the keeping of submarines in commission is because that is the only way to save them. When a submarine goes out of commission we consider that she is about done for. She has a storage battery worth about \$200,000, and if once laid up that practically goes to pot, so that the two-thirds of the crew will keep the vessels in operation, so that you can save all of the machinery. Submarines are different from destroyers in that respect.

Secretary DENBY. There is another thing about the submarines. That is the extreme difficulty of training the men. You can not pick them up; you have to train them. The men who are willing to take the extra hazard, we can not afford to let them get down to the lowest point, because you can not train submarine men quickly.

Mr. KELLEY. How many submarines has Japan?

Colonel ROOSEVELT. She has somewhere in the neighborhood of 31.

Mr. KELLEY. Can you give the exact number?

Colonel ROOSEVELT. I can not. My latest advice is that six more came into commission in the last five months.

Mr. KELLEY. Five-thirds of 33 would be 55.

Colonel ROOSEVELT. Great Britain has 100 in commission, and 84 is 84 per cent of 100.

Mr. KELLEY. You think that Great Britain will keep all of those in commission?

Colonel ROOSEVELT. We do not know what Great Britain will do next year.

COST OF SUBMARINES.

The CHAIRMAN. Can you give me now the cost range?

Admiral COONTZ. I should like first to give the cost of the vessels. The lowest one, I see, O, is \$523,000, and the highest one is \$2,168,000. Those are the cost ranges.

Mr. KELLEY. The \$2,000,000 fleet submarines are the very large ones?

Admiral COONTZ. Yes, sir. The other figures are \$1,200,000, \$1,300,000, and so on.

Mr. KELLEY. Those are the war costs, most of those were built during the war?

Admiral COONTZ. Yes, sir. Now, the new ones cost \$1,440,000. The total maintenance and operation cost of an O boat last year, Mr. Madden, including the officers, rations, stores, operating expenses, etc., was \$53,000.

I will just take a few cases at random. Here is one at \$61,000, another at \$48,000, and another at \$72,000. In the case of the E's, which, of course, cost more, they range from \$83,000 up to \$113,000. I take it that these vessels were in commission all the year around with crews, while vessels that were operating with two-third crews would have nowhere near that expense.

Mr. KELLEY. At this point put in the list of submarines, by name and number, with the number of men on the several dates we have indicated, with a statement showing the exact number of men to be carried on each one.

Captain WILLIAMS. I will supply that. [See p. 216.]

Mr. BYRNES. How many men do you carry on a submarine?

Admiral COONTZ. The number varies from 21 to 42. The average is about 30.

Mr. BYRNES. The figures you gave Mr. Madden include the cost of everything?

Admiral COONTZ. Yes, sir; they represent the entire cost.

Mr. KELLEY. Some of them run more than the cost you have stated. The K-boats last year ran to \$146,400, and one of the O-boats cost \$211,000.

SUBMARINE CHASERS.

Mr. KELLEY. Now, we will take up the submarine chasers. I will be glad if you will make a statement about the submarine chasers, showing what is intended to be done with them.

Admiral COONTZ. There were built for the Navy 341 submarine chasers, and there are now left in the Navy 80 submarine chasers. There are in commission 31 submarine chasers; training reservists, 7 submarine chasers; out of commission, 18; on sale, 10, and loaned 4. We expect to reduce the entire number in the naval service to 40.

Mr. KELLEY. Why not make a further reduction of 40?

Admiral COONTZ. That is a question which depends on the future of the Naval Reserve.

Mr. KELLEY. They are not of any good to fight with, or for any other service except to use gasoline, which is a very expensive commodity.

DUTIES OF SUBMARINE CHASERS.

Admiral COONTZ. I must differ from you there. They are good to fight with.

Mr. KELLEY. Let us get them out.

Admiral COONTZ. They did good service in the war. A lot of them went across. There are 16 of them in use for training reservists. If we did not have the reservists, then we would very cheerfully get them out. I would like to run over this list showing what service each of them is performing. We have two submarine chasers on the coast of Florida. They are keeping the sovereignty of the United States intact by preventing a cable line from being landed without proper authority.

Mr. KELLEY. If they can keep the sovereignty of the United States intact, they are better than I thought.

Admiral COONTZ. We have had to keep those two vessels on the Florida coast at the direction of the President of the United States this time, and I would be glad to read a statement showing in what duties the rest of them are engaged.

Mr. KELLEY. What guns do they carry?

Admiral COONTZ. They carry one 3-inch gun and two machine guns. They can carry rifles. However, one of them overhauled a big cable ship by firing across her bow, and she has never landed cable.

The CHAIRMAN. As I understand it, a permit has been granted for that cable.

Admiral COONTZ. No, sir; we have written to the State Department within a week or two in reference to that. These cost a lot of money down there. That is done under the President's order. There are 43 of them in commission, and we would gladly take out 16 except for the reservists. There is no desire on our part except to do what we actually have to do in this connection.

Mr. KELLEY. The figures show that they are costing quite a lot of money. For instance, No. 96 cost \$8,639 for the first three months of this fiscal year.

Admiral COONTZ. That one is at Constantinople.

Mr. KELLEY. We have destroyers at Constantinople, and these little boats will not do much in maintaining the dignity of the United States over there.

Admiral COONTZ. But it will save money, because destroyers doing the same service would cost 5 or 10 times as much.

Secretary DENBY. We will get rid of that one, anyhow.

Mr. KELLEY. No. 154 cost \$6,340 for the first three months of this fiscal year.

Admiral COONTZ. That one is on duty preventing the landing of a cable by order of the President.

Mr. KELLEY. That would be at the rate of \$25,000 a year.

Admiral COONTZ. That subchaser is performing duty under Executive order. We would be glad to take it away.

Mr. BYRNES. The figure on this statement I have is \$13,000. Is that for a year?

Admiral COONTZ. I take it that is for a year. I think these tables run for many years, and anything that comes up is added on.

Mr. BYRNES. If this figure is for a year, then the figures that the chairman read would indicate a greatly increased cost during the last few months.

Mr. KELLEY. When they are going at full blast, I understand that they use 60 gallons of gasoline an hour.

Admiral COONTZ. They have three engines, and I think those vessels that were watching the cable ship were steaming up and down all the time.

Mr. KELLEY. No. 271 cost \$4,508.48 for the first three months of this year.

Admiral COONTZ. That one is training reservists.

Mr. KELLEY. No. 306 cost \$7,609.20.

Admiral COONTZ. That is at San Diego looking after the air force when they fly out to sea. It tows them back in.

Mr. KELLEY. No. 338 cost \$9,416.97.

Admiral COONTZ. That is another one of those at Constantinople. We have offered that one for sale.

Mr. KELLEY. No. 412 cost \$9,359.41 for three months of this year.

Admiral COONTZ. She is at Chicago for training the reservists. She is making her usual cruises. She is used in training reservists all the way from Chicago down the Lakes.

Mr. KELLEY. If we did not give you any men for these boats, you would not care much, would you?

Admiral COONTZ. If you did not give us any men for the subchasers, we could not provide training for the reservists, which we

are required to do under the law. That is something over which we have no control.

Secretary DENBY. We regard the reservists as a very important adjunct of the Navy, and I think everybody does. We must take care of them in some way.

Admiral COONTZ. The greatest interest is taken in this training along the Lakes, and these boats go all the way from Chicago down to Detroit, and up to Duluth. That is a situation that we must meet.

Mr. KELLEY. They are pretty poor boats to train anybody on.

Secretary DENBY. You can train them in target practice.

Mr. KELLEY. If you did not have these boats, you would not ask us to build them?

Secretary DENBY. Not of this type; no, sir. I was in the Naval Reserves after the Spanish-American War, and there was never a time when we did not have a good ship up there on the Lakes.

Mr. KELLEY. Why not follow that policy now?

Secretary DENBY. Well, give us a good ship. After the Spanish-American War, we had the *Yantic*, the *Don Juan de Austria*, and the *Gopher* on duty up there. That is something we do want very much indeed, and we have a separate bill, which will ultimately reach you, in regard to the stabilizing of the reserves.

Admiral COONTZ. The ninth district, in which, I believe, you and Mr. Madden live, has more than 4,000 of these reservists.

Mr. KELLEY. How many boats do you have up there?

Admiral COONTZ. We have 11. That is a pretty small number. Every one of those boys is enthusiastic, and we get calls from Milwaukee, Detroit, and other places up there asking us to keep it up. If we should leave them, it would break their spirit.

Mr. KELLEY. I would rather strike all this out and send a good ship up there, just as we had before the war.

Admiral COONTZ. There is a treaty that does not allow it.

Mr. KELLEY. How did you manage that before the war?

Secretary DENBY. We had the *Yantic*, the *Don Juan de Austria*, and the *Gopher* up there.

Mr. KELLEY. They were real ships.

Secretary DENBY. Yes, sir. We had the *Yantic*, which was a wooden ship built in 1864; and, also, the *Don Juan de Austria*, one of the captured Spanish ships. We also had the *Gopher*. We had several yachts and vessels of that type that were of no military value, but on which men were given a training that enabled them to go in as first reserve men. They learned their way about ship a little, knew how to wear the uniform, how to shoot, etc. The Naval Militia and naval reservists are blending now, and both are very valuable adjuncts to the Navy.

Mr. KELLEY. How many men do you want for these little boats?

Admiral COONTZ. Not very many. I will ask Captain Williams to answer that.

Mr. KELLEY. How many men do you want for these boats, Captain?

Captain WILLIAMS. I will supply that for the record.

Mr. KELLEY. You can supply the number required for each boat.

Captain WILLIAMS. For those in reserve we will want three men, the nature of caretakers and 15 men for those in full commission. It depends on what they are used for. I will make up a table of that. [See p. 216.]

EAGLE BOATS.

Mr. KELLEY. I notice that you have spent during the first quarter of this fiscal year \$1,012,844 on Eagle boats. Are they worth it?

Admiral COONTZ. Yes, sir.

Secretary DENBY. There are not many Eagle boats, and we will be glad to strike out any that do not seem to be really needed. There are only 48 Eagle boats in commission.

Mr. KELLEY. Last year you spent \$4,208,000 on them, as I recall it.

Secretary DENBY. If they are not worth it, we will be glad to get rid of them.

Mr. KELLEY. Do you think they are worth it?

Secretary DENBY. We will furnish you a statement of those that we think we must have.

Admiral COONTZ. There are 54 Eagle boats.

Secretary DENBY. There are only 48 in commission.

The CHAIRMAN. How many did you have in 1916?

Admiral COONTZ. None. There are in ordinary at Portsmouth, 12 which require 100 men; No. 9 is in the fifth naval district training reserves; No. 10 is out of commission; No. 11 is on duty with sub-marines at San Diego; No. 12 is training reserves in the eleventh district; No. 13 is training reserves in the third district; No. 14 is on duty with submarines at Pearl Harbor; No. 15 is training reserves in the third district; No. 17 is on duty with submarines at Hampton Roads; No. 18 is in ordinary at Portsmouth; No. 19 is training reserves in the first district; No. 20 is on duty with the marines at Quantico; No. 24 is in ordinary at Portsmouth; No. 26 is training reserves in the third district; No. 27 is training reserves; No. 28 is in ordinary; No. 29 is training reserves on the Maine coast; No. 31 is at the Isthmus; No. 32 is out of commission; No. 33 is on submarine duty; No. 34 is training reserves; No. 35 is training reserves; No. 36 is training reserves; No. 37 is in ordinary; No. 38 is training reserves; No. 39 is training reserves; No. 40 is on duty at air stations; No. 41 is in ordinary; No. 42 is training reserves; No. 43 is out of commission; No. 44 is training reserves; No. 45 is in ordinary; No. 46 is the group flagship for 12 Eagles in ordinary at Portsmouth; No. 47 is training reserves; No. 48 is training reserves; No. 49 is training reserves; No. 50 is in ordinary; No. 51 is training reserves; No. 52 has been ordered out of commission; No. 53 is out of commission; No. 54 is training reserves; No. 55 is training reserves; No. 56 is training reserves; No. 57 is training reserves; No. 58 is training reserves; No. 59 is training reserves; and No. 60 is out of commission.

Mr. KELLEY. Nearly all are training reserves?

Admiral COONTZ. Yes, sir; nearly all of them.

Secretary DENBY. I would like to state that the general tendency in reference to all of these vessels in the Navy is to sell those of which no beneficial use is being made.

Mr. KELLEY. In the meantime, can you not tie them up?

Secretary DENBY. Those that are not in beneficial use will be disposed of.

Mr. KELLEY. How many naval reservists have you trained this year?

Admiral COONTZ. A large number.

Mr. KELLEY. Where did you train them?

Admiral COONTZ. On the Lakes and on both seaboard.

TRAINING OF NAVAL RESERVE.

Mr. KELLEY. Tell us where these boats that are training naval reservists are located.

Admiral COONTZ. The first one is here at Washington, D. C. They have a very live organization; they cruise on the Potomac river.

Mr. KELLEY. Do they make trips every day?

Admiral COONTZ. They are about as enthusiastic a crowd as you ever saw.

Mr. KELLEY. Is that boat in commission all the time?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Where do you get naval reservists to serve on the boat all the time?

Admiral COONTZ. I meant to say that she goes out frequently. Of course, Captain Williams can tell you more about it than I can.

Captain WILLIAMS. I am not at all certain but that some committee got aboard that Eagle boat when it came over from Richmond.

Mr. KELLEY. How many naval reservists are there in Washington?

Captain WILLIAMS. Two hundred and twenty-five on March 1, 1922.

Mr. KELLEY. When do they train?

Captain WILLIAMS. They train on Saturday and Sunday cruises on the river, and during the summer they make more extended cruises.

Mr. KELLEY. What does the boat do the rest of the time?

Captain WILLIAMS. She lies up here at her dock.

Mr. KELLEY. Steamed up?

Captain WILLIAMS. No, sir. They have guns on board, and it forms a base for the organization. It is a sort of floating armory. To illustrate that point further, in many places we had an old organization of Naval Militia which was primarily a State organization, and the States gave them armories. When the Federal Government created the reserves, in many places the Government gained the benefit of those militia organizations which had the use of State armories. Here in Washington they have a small armory down the river. If I am not mistaken, it is the only one in the District. It overflowed that armory, and they needed encouragement for drills, etc. That particular organization is peculiar in this respect, that it has in its organization a number of very high class men, machinists, etc., who are employed in the Washington Navy Yard.

Mr. KELLEY. Let us not go into the details now, because it will make the record too long. I want to know what these boats are doing, and I see that this one makes cruises on Saturdays and Sundays.

Captain WILLIAMS. And summer cruises.

Mr. KELLEY. How many cruises does it make in the summer?

Captain WILLIAMS. I do not remember exactly those cruises. I remember one that came from Richmond, and I think they were about three months.

Mr. KELLEY. Summer cruises could be as well made with destroyers.

Captain WILLIAMS. No, sir.

Mr. KELLEY. Why not put them on battleships and other vessels of that kind in summer, where you already have the expense anyhow?

Captain WILLIAMS. We have tried that, and it is not satisfactory.

Mr. KELLEY. I should think it would be better to have them train on the ships on which they are likely to serve, instead of on the little boats.

Captain WILLIAMS. In the first place, the principal thing about the reserves is to cultivate their morale. They can not meet weekly and monthly, as the custom is, and hold the organization together unless they have some place at which to meet. The National Guard have their armories, but these people have no armories.

Mr. KELLEY. Do they not meet in the National Guard armory?

Captain WILLIAMS. Not regularly. They have no right to do so.

Mr. KELLEY. We carry an appropriation in the bill for armories.

Captain WILLIAMS. They carry \$29,000,000 for National Guard armories in the Army.

Mr. DAVIS. We gave them all they asked for here in Washington.

Mr. KELLEY. Where else are these boats located?

Captain WILLIAMS. There are some in the various districts, as they will go. For example, there is one at Richmond.

Mr. KELLEY. And one in Washington?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You have one of these Eagle boats in Richmond.

Captain WILLIAMS. Yes, sir. These reservists are made up of men who are interested in this movement, and they are scattered in small groups up and down the river.

Mr. KELLEY. What did we do with those reservists before the war?

Captain WILLIAMS. We did not do much of anything with them. We did not have them.

Mr. KELLEY. What did we do with the Naval Militia?

Captain WILLIAMS. The Naval Militia was a different thing. It got Federal aid and also State aid.

Mr. KELLEY. Suppose we leave that question for the moment. As I understand it, practically all of those you need are needed for naval reservists, and we will discuss the naval reservists when we come to that item.

Admiral COONTZ. I might make this statement: Of the 48 we have 25 are training reservists, 13 are in ordinary, 8 are used for submarine duties, and 1 for air station duty, and 1 is used here at Quantico. Now, then, the question will come down finally to the 25 that are used for training reservists, because 12 are in ordinary, and the rest that will not be needed will go out of commission.

Mr. KELLEY. What you are really asking for is about \$4,000 for these boats. That is just about the rate of expenditure they are going on now.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They cost \$484,000 for the first three months. This is one place where I think you could very well use some submarine tactics, and it would not make much difference with the service. It would not hurt that part of the Navy which will contribute to the defense of the country.

etary DENBY. Except in so far as the Naval Reserves are needed.

KELLEY. Well, if they have to be trained in that way then it is to the question as to what is the most economical way to do it.

airal COONTZ. If we did that, they would be reduced to about 10, if you take the reserve business out.

KELLEY. If you did not use any of them for the Naval Reserves, you would take about 10.

airal COONTZ. We would keep about 10.

KELLEY. And they average about how many on board?

airal WILLIAMS. The Naval Reserve complement is 10.

airal COONTZ. But these all have various duties which will only appear later.

KELLEY. The Naval Reserve complement is 10 and you are 18, as I recall?

airal COONTZ. Twenty-five. Eagles are assigned to training ships.

KELLEY. That would be 250 for the Naval Reserves, and how many are on board when you use the regular ships?

airal WILLIAMS. The full complement is 54, but they probably do not have the full complement.

airal COONTZ. The average is about 45.

KELLEY. Do you have that many on board now?

airal COONTZ. Yes.

KELLEY. That would be 450 more?

airal COONTZ. Yes, sir.

KELLEY. So you are using about 700 men?

etary DENBY. Except as to those in ordinary.

KELLEY. Well, they might as well be greased up and packed up might they not?

airal COONTZ. We can do that.

etary DENBY. Or we might sell them.

KELLEY. If you could sell them, that would be the thing to do. They run into money very fast; they ran into \$1,000,000 in a few months.

etary DENBY. Do you not think it would be better to sell them than to lay them up?

KELLEY. I do not know a thing about the sale prices you are getting.

etary DENBY. To whom can you sell them?

etary DENBY. We sold 112 subchasers at one sale, and we got \$1,000,000.

etary DENBY. Who buys them?

etary DENBY. I do not know, but some fellow buys them; he takes them and makes them into very attractive yachts. He may get some money out of them in that way, but we could not do it.

etary DENBY. They buy them for peace purposes and not for war purposes?

etary DENBY. Yes.

TORPEDO-BOAT TENDERS.

DESTROYER TENDERS.

Mr. KELLEY. The next are torpedo-boat tenders. Are these destroyer tenders or submarine tenders?

Admiral COONTZ. These are destroyer tenders and submarine tenders. Shall I run right down the list?

Mr. KELLEY. Yes. Which ones are you going to strike off? We can make a big reduction here, can we not?

Admiral COONTZ. The *Alert* is to be sold; the *Beaver* will remain in commission; the *Buffalo* will not remain in commission; the *Bushnell* will remain in commission; the *Dixie* will go out of commission; the *Dobbin* is being built.

Mr. KELLEY. Will the *Dobbin* be in commission this year?

Admiral COONTZ. She will not. The *Fulton* will remain in commission; so will the *Hannibal*; the *Iris* has been sold; the *Lebanon* is out of commission; the *Leonidas* is to be sold; the *Melville* is to remain in commission; the *Panther* is to go out of commission and be sold; the *Pompey* is on the sale list; the *Prairie* is to go out of commission when relieved and is to be sold; the *Prometheus* is to remain in commission; the *Rainbow* is to remain in commission; and the *Whitney* is being built.

Mr. KELLEY. Will the *Whitney* be in commission this year?

Admiral COONTZ. No, sir. I believe there are 13 there, there are 2 being built, there is 1 out of commission, there is 1 already ordered out of commission, there are 2 more ordered out of commission, and we finally expect to keep 6 destroyer tenders.

Mr. KELLEY. Six tenders?

Admiral COONTZ. Yes, sir; six destroyer tenders.

Mr. KELLEY. How many men will those tenders take?

Admiral COONTZ. Captain Williams, I think you had better put that in, for this reason, that in the Secretary's latest order he reduced that to six.

Captain WILLIAMS. I will put that in the hearing.

Mr. KELLEY. Do not put in any that are being built.

Captain WILLIAMS. No, sir.

Mr. KELLEY. Put in your list the number of men on each one, following the same order that was suggested awhile ago.

Captain WILLIAMS. All right, sir. (See p. 216.)

Admiral COONTZ. One moment. This list has two kinds of tenders in it.

Colonel ROOSEVELT. You have the destroyer tenders and submarine tenders together; as a matter of fact, the list of your destroyer tenders is correct, that is, six are to be kept in commission and the balance are to go out.

Mr. KELLEY. Can you give me approximately the number of men the six will require?

Colonel ROOSEVELT. Two thousand seven hundred and fifty-nine for the six.

Captain WILLIAMS. The *Beaver*, *Savannah*, *Bushnell*, *Camden*, and *Fulton* have 1,618 men on board.

Colonel ROOSEVELT. We are on the submarine tenders as well as on the destroyer tenders, and I think we had better separate the two or we will get fearfully mixed up.

Mr. KELLEY. These tenders are both submarine and destroyer tenders, are they?

Colonel ROOSEVELT. No, sir; the six I gave you are destroyer tenders. I think it would be much simpler if you took the destroyer tenders first and went over them and then the submarine tenders.

Mr. KELLEY. But the six are for both and the total is right?

Colonel ROOSEVELT. No.

Captain WILLIAMS. The classification in the Paymaster General's report is not the same classification we have made. The list you are reading from includes both.

Mr. KELLEY. Admiral Coontz, how many tenders will there be with the destroyers?

Admiral COONTZ. Six.

Mr. KELLEY. How many tenders will there be for the submarines?

Admiral COONTZ. Seven.

Mr. KELLEY. Where do we find a list of those?

Admiral COONTZ. As we run down I will find them. The top one is the *Alert*; it is to go out of commission and be sold. The next one is the *Beaver*, submarine tender.

Captain WILLIAMS (interposing). She now has on board 300.

Admiral COONTZ. The *Beaver* stays in commission and she is a submarine tender; the next submarine tender is the *Bushnell* and she remains in commission.

Captain WILLIAMS. She has 179 men on board.

Admiral COONTZ. The *Fulton* stays in commission.

Mr. KELLEY. Is she a submarine tender?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Colonel Roosevelt, how many submarine tenders did you say would be necessary?

Colonel ROOSEVELT. Seven.

Mr. KELLEY. And we need 13 out of this whole list of 19?

Colonel ROOSEVELT. Yes, sir; we need seven submarine tenders, with a complement of about 1,882 men, and we need six destroyer tenders, with a complement of somewhere around 2,200 men.

Admiral COONTZ. There is an extra ship on this list, known as the *Prometheus*, which is a repair ship.

Colonel ROOSEVELT. I think you have it right now; the destroyer tenders first, then the submarine tenders, and then the fleet repair vessel.

Mr. KELLEY. This is a very big item, and you have not reduced it very much. Although you have taken out a large number of destroyers, you have only taken out—

Admiral COONTZ (interposing). Twenty-five per cent; we have taken out two.

Mr. KELLEY. Two tenders?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Last year this service cost over \$10,000,000.

Colonel ROOSEVELT. But I think you will find we have reduced it more than you think. Let me just explain our reasons, and perhaps that will clarify the situation. A destroyer tender goes with a flotilla of destroyers. Now, if you will calculate and see where our destroyers are and how they are disposed of next year, you will get the exact number we have. In other words, we are going to keep 19 destroyers with the Atlantic Fleet, and there will be one tender; we

are going to keep 57 destroyers with the Pacific Fleet, with three tenders; we are going to keep one destroyer flotilla in Asiatic waters, and that is another one, making five; and there would be one more with our 50 per cent complement destroyers, wherever they are based, which would make six.

Mr. KELLEY. And you only have eight now?

Colonel ROOSEVELT. No; we have nine now, have we not?

Admiral COONTZ. No; we only have eight.

Colonel ROOSEVELT. We have 11 now, two of which are building.

Mr. KELLEY. But you do not have those.

Colonel ROOSEVELT. I should have said that we have 13, 2 being being built; taking off those 2 makes 11; therefore we now have 11. You see, I stopped with the 13 and went back to the 11, making 11 now.

Mr. KELLEY. But the admiral says eight, and I would like to know who is right.

Colonel ROOSEVELT. We reduced five of them——

Mr. KELLEY (interposing). Wait a minute, Colonel; you and the admiral are quite at variance here.

Colonel ROOSEVELT. We have 11 and we take 5 out of commission, leaving 6, so we cut them nearly in half.

Mr. KELLEY. Admiral, is that correct?

Admiral COONTZ. Yes; we cut down to six.

Mr. KELLEY. And you are taking out five?

Admiral COONTZ. We are taking out five.

Mr. KELLEY. From the present number or from some number in times gone by?

Admiral COONTZ. We have ordered——

Mr. KELLEY (interposing). What I want to know is how many you have right at this minute.

Admiral COONTZ. I have got to turn to my destroyer man. How many have we?

Captain KALBFUS. I think a point that is not quite clear is that there are three destroyer tenders recently acquired from the Shipping Board and which are to replace three in that list, so that makes a double number appearing in the list.

Admiral COONTZ. But to-day we have eight in commission, and ordered out of commission two, thus reducing to six.

Captain KALBFUS. You see, you have a double number there, so that you are really counting twice.

Mr. KELLEY. So that you are not making the reduction you thought you were making, because you are only reducing in number from eight to six.

Colonel ROOSEVELT. Last year how many did we have?

Captain KALBFUS. We have never had more than eight destroyer tenders.

Mr. DAVIS. You only have one actually out of commission, but you have three that you have ordered out—is not that right?

Admiral COONTZ. Yes, sir.

Mr. DAVIS. One actually out and three you have ordered out, but not out yet?

Admiral COONTZ. We are going to reduce it to six.

Mr. KELLEY. You are laying up 150 ships and taking out only two of these ships, two out of eight.

Colonel ROOSEVELT. As tenders, yes; but we will have a number of destroyers based on shore stations, and at the shore stations we have tenders.

Mr. KELLEY. Admiral, why could you not get the oil for these ships in peace time without having tenders in commission except when you are making a cruise or something like that, so as to have them in commission only part time?

Admiral COONTZ. They have nothing to do with the oil.

Mr. KELLEY. These are all supply ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Why can not the supplies ordinarily be taken from the base?

Admiral COONTZ. Oh, Mr. Kelley, think of the time you would have to consume and the cost of it. This proposition is the outgrowth of a study of years; it keeps the destroyers from going to the navy yards.

Mr. KELLEY. How many tenders did you have before the war?

Admiral COONTZ. We probably had a greater proportion than we have at the present time; before the war I think we only had 50 destroyers.

Mr. KELLEY. And how many tenders did you have?

Captain KALBFUS. I think we had three.

Mr. KELLEY. And now we have 6 with 126; 3 with 50 and 6 with 26, and how many men did you have?

Captain WILLIAMS. For destroyer tenders, 2,326.

Colonel ROOSEVELT. No; for the seven somewhere around 2,200.

Mr. KELLEY. At this point put in a table showing the names of those you intend to keep in commission, with the number of men now carried, the number you want for next year, and if it were in existence before the war, put in the information for that time.

Captain WILLIAMS. Very well. [See p. 216.]

Mr. KELLEY. What was it you said about three tenders from the Shipping Board?

Admiral COONTZ. I will have to ask Colonel Roosevelt to reply to that.

Colonel ROOSEVELT. A little while ago we had a lot of very old ships in commission and an old ship is very expensive to operate. The Shipping Board had a certain number of new ships which would be very much less expensive to operate, and instead of selling the old ships and putting us to the expense of building new ships, which would have become necessary very soon, we took over these new ships. They gave them to us and we disposed of our old ships, thereby cutting our cost of operation.

Mr. BYRNES. How about these two that are building? When are they going to be completed?

Admiral COONTZ. The date of completion is indefinite.

Mr. KELLEY. You do not need them now at all?

Admiral COONTZ. Oh, yes. I would like to read the names of the ones that are going out, because I know you will recognize some of them.

Mr. KELLEY. Are they tenders?

Admiral COONTZ. Yes. The *Prairie*, the *Panther*, the *Leonidas*, and finally the *Dixie*. You remember them in the last century?

SUBMARINE TENDERS.

Mr. KELLEY. Now the submarine tenders. Give the names of the submarine tenders you intend to keep.

Admiral COONTZ. Do you want me to run down this same line again and finish it up?

Mr. KELLEY. Yes.

Admiral COONTZ. The tenders to be kept are the *Beaver*, the *Bushnell*, the *Canopus*, the *Fulton*, the *Camden*, the *Savannah*, and the *Rainbow*.

Mr. KELLEY. That is how many of them?

Admiral COONTZ. Seven. One ordered out of commission is the *Alert*, and she went out to China, to my certain knowledge, in 1880. The others are fairly new and fitted for the purpose.

Mr. KELLEY. Just about half of this expense is for submarine tenders and half for the destroyers, the way you have it planned for next year?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. It seems as though that is quite a lot of money for submarine tenders.

Mr. BYRNES. How many men do you provide for?

Admiral COONTZ. One thousand eight hundred and eighty-two.

Mr. KELLEY. You understand that these lists are to be put in all the way down and are to be along the lines already suggested?

Captain WILLIAMS. Yes, sir. (See p. 216.)

Mr. KELLEY. And in each case give the name and the number of the ship, except as to destroyers, which you can put in a lump.

Admiral COONTZ. Of course, you know what a submarine tender does?

GUNBOATS.

Mr. KELLEY. Yes; I do. We will now take up the gunboats. How many are you going to cut off?

Admiral COONTZ. Quite a number. The *Annapolis*. Is that the new *Annapolis* being built?

Mr. KELLEY. It looks like an old fellow.

Admiral COONTZ. No; she is gone. The *Asheville* is the new one I spoke of as going to China. There is some mistake about that; her date of commission ought to be 1917 instead of 1897. The *Castine* has been sold; the *Dolphin* has been sold; the *Don Juan De Austria* has been sold; the *Dubuque* has been selected for the sale list; the *Elcano* is to be retained; the *Essex* is with the Naval Reserves, and the *Gopher* the same.

Mr. KELLEY. Have we not enough Eagle boats for the Naval Reserves without using gunboats?

Admiral COONTZ. No, sir; they are all up in your part of the country. The *Helena* is out of commission; the *Isle de Luzon* has been sold; the *Machias* has been sold; the *Marietta* has been sold; the *Monocacy* stays in; the *Nantucket* has been loaned to the State of Massachusetts for a nautical school; the *Nashville* has been sold; the *Newport* is used at New York as a nautical school ship, and it does not cost us anything; the *Paducah* has been assigned to training U. S. N. R. F.; the *Palos* stays in China in commission; the *Pampagna* stays in China in commission; the *Petrel* has been sold; the *Quiros*

s in China; the *Sacramento* goes to China and relieves the *Newans*; the *Samar* has been sold; the *Sandoval* has been sold; the *sa* is being built and will not be completed this year; the *Vicks-7* is turned over to the Coast Guard by law; the *Villalobos* is mined in China; the *Wheeling* is with the Naval Reserves; the *Imette* is with the Naval Reserve in Chicago; the *Wilmington* is China; the *Wolverine* is with the Naval Reserve; so is the *Yantic*; the *Yorkton* has been sold. Now, here is another case where there is considerable mixture; some of these come in one place and some in another, and in order to clarify it, I would like to run over some I have missed.

Mr. KELLEY. Where do we get those?

Commander HILL. I do not know; they are all tangled up among miscellaneous ships; they do not run by anything in the book you see.

Admiral COONTZ. There are very few on this other list. The *ton* is the receiving ship at San Francisco; the *Cheyenne* we have handled before; the *Chicago* we have handled before; the *Iowa* we have handled before; the *Cumberland* is out of commission; the *ex* we have handled before, as well as the *Gopher*; the *Hartford* we know about; the *Hawk* is at Milwaukee; the *Kearsarge* is being converted to a crane ship and will not require any personnel this year; the *Monadnock* is out of commission at Cavite; we have not been able to get anybody to buy her; the *Nantucket* is loaned to the State of Massachusetts as a nautical school ship; the *Newport* is at New York as a school ship; the *Constellation* is at Newport as a naval relic; the *Constitution* is at Boston as a naval relic; the *Oregon* is at Puget Sound as a naval relic; the *Philadelphia* is the receiving ship at Puget Sound; the *Reina Mercedes* is the Naval Academy training ship; the *Southery* is the receiving ship at Portsmouth.

Mr. KELLEY. You are not adding to the list you have already had?

Admiral COONTZ. I have added a few, like the *Hawk*, but I believe that is the only one I have found, outside of the *Boston*, which appears in other lists.

Mr. KELLEY. That list is just about the same.

Admiral COONTZ. Yes; those gunboats.

NUMBER OF BOATS NEEDED TO TRAIN NAVAL RESERVES.

Mr. KELLEY. You have a lot of Naval Reserve boats in there, sir, Admiral.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many boats altogether do you think you want for the Naval Reserves?

Admiral COONTZ. If we answer all the requests we would need about 200, because there is no city of any size or no State that seems to have overlooked making a request. I suppose New York alone would take 30 if we would give that many to them, but we have brought the thing down as low as we can.

Mr. KELLEY. And you gave them one?

Admiral COONTZ. We did not give them any destroyers.

Mr. KELLEY. I mean you gave them one.

Admiral COONTZ. No; New York has 13. They are very enthusiastic.

Mr. KELLEY. They have their Naval Reserve up there?

Admiral COONTZ. Yes, sir; Naval Militia and Naval Reserve, but all the militia is in the reserve. Several of the States still keep the Naval Militia as well as the Naval Reserve.

Mr. KELLEY. How many of this list of gunboats are to be used for the Naval Reserve?

Admiral COONTZ. I had 10.

Mr. KELLEY. The *Yantic* is in the list of gunboats?

Admiral COONTZ. She is one of the 10 training naval reservists.

Mr. KELLEY. Ten of them?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What ships do you actually want to add to this list?

Admiral COONTZ. The *Hawk*, *Briar Cliff*, *Commodore*, and *Sturgeon Bay*.

Colonel ROOSEVELT. The *Sturgeon Bay* is going to be taken over by the Naval Militia in New York. My belief is that she does not require personnel.

EXPENSE OF STATE NAUTICAL SCHOOL SHIPS.

Mr. FRENCH. When they are turned over to the States do they require any expense?

Admiral COONTZ. The nautical school ships do to this extent: The law requires that we shall officer them if they desire it. I think we have one officer on each. At one time we had as many as five. Furthermore, we are compelled to put repairs on them. There are only three of them; three States have them. We give each State \$25,000, provided it furnishes \$25,000 itself. So the school ships each year cost us \$75,000.

Mr. FRENCH. First you loan it and then you keep it in repair?

Admiral COONTZ. We do not do it all; from time to time we make repairs. The cost may not exceed \$75,000.

Mr. KELLEY. You add four to the list of gunboats that are to be left. Then make up the table in the same way.

Captain WILLIAMS. Yes, sir. (See p. 216.)

Mr. KELLEY. About these boats which are in China—the *Asheville* you say, is in China?

Admiral COONTZ. She is going to China to relieve the *New Orleans*.

Mr. KELLEY. What will you do with the *New Orleans*?

Admiral COONTZ. Bring her home and sell her.

Mr. KELLEY. What list is she on now?

Admiral COONTZ. We have gone by her.

Mr. KELLEY. The *Asheville* must be quite a ship?

Admiral COONTZ. She saved us a lot of money.

Mr. KELLEY. She is an old ship?

Admiral COONTZ. No, sir; about four years old.

Mr. KELLEY. Then, this is a mistake!

Admiral COONTZ. Yes, sir.

Mr. KELLEY. It should not be 1917?

Admiral COONTZ. No, sir; the *Asheville* was first commissioned 1920.

Mr. KELLEY. Where did you get her?

Admiral COONTZ. We built her for that purpose.

Mr. KELLEY. And the *Helena*?

Admiral COONTZ. She is out of commission.

Secretary DENBY. If I may say, the Secretary of State has written me if we could send more ships to China. We can not do it very just now. China is larger than the United States and it is on our great rivers where they have the disorders and troubles, that our patrol vessels are necessary.

Mr. BYRNES. What about the *Sacramento* and the *Albany*?

Admiral COONTZ. The *Asheville* and *Sacramento* go out to relieve two ships, *Albany* and *New Orleans*.

Mr. KELLEY. Does the *Paducah* go out there?

Colonel ROOSEVELT. That is the one that goes to the Minnesota River.

Mr. KELLEY. You will not need much personnel on her?

Colonel ROOSEVELT. No, sir.

Mr. KELLEY. As far as personnel is concerned, that might be left?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The *Sacramento* goes out to China?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What will be the personnel required for the ships in the gunboat class with these four to be added, the *Hawk*, the *Irish Cliff*, the *Commodore*, and the *Sturgeon Bay*? There are 22 of these, and 9 of them are naval reserve vessels which will not require much personnel. That would leave 14 that would require full personnel and 9 naval reserve vessels.

Captain WILLIAMS. It is estimated that the vessels will require 10 men, but the exact figures will be found in the table. (See 216.)

TRANSPORTS.

Mr. KELLEY. Now the transports?

Admiral COONTZ. The *Ancon*, long since gone; the *Antilles*, same; *Arcturion*, same; *Eten*, same; *Finland*, same; *Floridian*, same; *General Alava*, Chinese waters; *Great Northern*, gone; *Hancock*, station ship Honolulu; *Harrisburg*, gone; *Henderson*, in service; *Kentuckian*, gone; *Lenate*, gone; *Louisville*, gone; *Mallory*, gone; *Manchuria*, gone; *Marica*, gone; *Matsonia*, gone; *Mawi*, gone; *Mongolia*, gone; *Narragansett*, gone; *Nepatian*, gone; *Northern Pacific*, gone; *Orizaba*, gone; *Pastores*, gone; *Paysandu*, gone; *Plattsburg*, gone; *Puritan*, gone; *Santa Ana*, gone; *Santa Cecelia*, gone; *Santa Clara*, gone; *Santa Elena*, gone; *Santa Eliza*, gone; *Santa Malta*, gone; *Santa Maria*, gone; *Santa Teresa*, gone; *Shoshone*, gone; *Siboney*, gone; *South Bend*, gone; *Sol Navis*, gone; *South Bend*, gone; *Saint Paul*, gone; *Sidore*, gone; *Troy*, gone; *Wilhelmina*, gone; and *Yale*, gone. I find that we have now to add to make this table absolutely correct five transports, of which the *Heywood* is not yet under construction.

Mr. KELLEY. Do not bother with that.

Admiral COONTZ. That reduces the remainder on this list to four.

Mr. FRENCH. There are only two on the list you read.

Mr. KELLEY. *General Alava*, *Henderson*, *Hancock*, *Argonne*, and *Mont*?

Admiral COONTZ. We have now 12 transports and cargo vessels. There is something the matter with these tables.

Colonel ROOSEVELT. I would hardly put the *General Alava* in with the transports.

Admiral COONTZ. She belongs to the Chinese gunboats.

Captain WILLIAMS. Those four will take 887 men.

Admiral COONTZ. And the *General Alava* 54 men?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. That would be added to the 887?

Captain WILLIAMS. No, sir; included in it.

Mr. KELLEY. This list of transports will be brought into a table just like the others?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. It might be useful to know just why you need these four transports.

Captain WILLIAMS. All right, sir.

Mr. KELLEY. There is something in the President's message about using the Shipping Board to carry where you can do it more economically.

Colonel ROOSEVELT. That has been gone into very carefully and we cooperate wherever we can.

Admiral COONTZ. This is an important matter coming at this time. We have several thousands of men in the Dominican Republic; we have people in Haiti. I believe we have 1,000 men.

Secretary DENBY. About 2,000.

Admiral COONTZ. We have people at the Virgin Islands; we have them in Guam, we have them in the Philippines, we have them at Samoa. We have moved the majority of our fleet from the Atlantic to the Pacific. It is cheaper to take the passengers allowed transportation by law, families, by transport than by rail. We also carry cargo on these transports. Up to recently we had only one good one, the *Henderson*. Recently, when the *Henderson* happened to be away, and we were suddenly called upon to send, within 12 hours, a large number of troops to the Isthmus of Panama, when the trouble existed between Costa Rica and Panama, we had to pile them on a battleship. We had all sorts of trouble. We have some very poor transports and some very small ones. Now, we are cleaning up our stores and we find them very necessary. If we could get commercial transportation to do it we would be very glad. These transports are necessary for our people who are now scattered in so many out-of-the-way places. We have to look out for them and we find it a necessity.

Mr. KELLEY. Where do these boats run?

Admiral COONTZ. Some of them run from San Francisco, and on this coast they have run mainly from Norfolk and Charleston.

Mr. KELLEY. To where?

Admiral COONTZ. They go to every point in the Dominican Republic and Haiti, and, if necessary, to the Virgin Islands. Then they also touch at Guantanamo.

Mr. KELLEY. At the present time which are on the Pacific?

Admiral COONTZ. The *Argonne* and *Chaumont* are on the Pacific and the *Henderson* and the smaller ones are on the Atlantic. Another thing about the cargo vessels is that we can not hire commercial ves-

s to carry our ammunition or gasoline or explosives; they do not it.

Mr. KELLEY. The Army has transports which would carry the wider?

Admiral COONTZ. No, sir; they can not carry sufficient.

Colonel ROOSEVELT. I might say for the record that the Army, Navy, and Shipping Board have all recently endeavored to coordinate the situation.

Mr. KELLEY. Did we have any transports before the war?

Admiral COONTZ. Yes, sir. We had the *Buffalo*, *Prairie*, and *incock*.

Mr. KELLEY. They were smaller than the ones referred to?

Admiral COONTZ. No, sir; the *Buffalo* is a very good affair, 6,680 tons, and makes 14 knots regularly. I served on her myself. She could carry quantities of freight.

Mr. KELLEY. I suppose your needs for the Orient will be just about the same as before the war?

Admiral COONTZ. The needs there, I should say, will be a little greater on account of the larger fleet in China.

Mr. KELLEY. Please put these ships in.

Captain WILLIAMS. Yes, sir. (See p. 216.)

SUPPLY SHIPS.

Mr. KELLEY. The supply ships come next.

Admiral COONTZ. Supply ships, I would like to run down as before. *Bridge* is to be retained in commission; *Celtic* is to be relieved by the *Pensacola* and go out of commission.

Mr. KELLEY. Where is the *Pensacola* now?

Admiral COONTZ. At Mare Island.

Mr. KELLEY. No; on what list?

Admiral COONTZ. I do not see her here.

Mr. KELLEY. The *Celtic* goes out?

Admiral COONTZ. Yes, sir. The *Culgoa* is also on the sales list.

Mr. KELLEY. You do not want that ship next year?

Admiral COONTZ. No, sir. The *Glacier* has been ordered out of commission to be sold. The *Supply* has been sold. I have here to add to this list these names of store ships. The *Pompey*, out of commission at Cavite, to be sold.

Mr. KELLEY. Put her down.

Admiral COONTZ. The *Rappahannock* and the *Arctic*.

Mr. KELLEY. Just three supply ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many men will those take?

Captain WILLIAMS. Six hundred and forty-five men.

Mr. KELLEY. Just make a short statement about the need for these ships?

Admiral COONTZ. Those are ships we have always used in the Navy and we had them before the war. The *Celtic*, *Culgoa*, and the *Glacier* we had in 1898. They carry provisions, food, ice, frozen beef, etc. We have reduced them down now to just three ships.

Mr. KELLEY. Where will they be located mostly?

Admiral COONTZ. The chances are that there will be one with each fleet, with one available to go either place or to carry provisions. Sometimes we can buy much cheaper on one side than on the other.

HOSPITAL SHIPS.

Mr. KELLEY. We now come to the hospital ships.

Admiral COONTZ. We expect to retain two in commission, the *Relief* and the *Mercy*. The others I never heard of. The *Repose* has been sold. The *Solace* is out of commission. The *South Port* and the *Sea Gate*, I never heard of them.

Mr. KELLEY. The *Mercy* and *Relief* are to remain in commission?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One with each fleet, probably?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. Seven hundred and nine men.

Mr. KELLEY. Please put in a table showing that.

Captain WILLIAMS. Yes, sir. (See p. 216.)

FUEL SHIPS.

Mr. KELLEY. We now come to the fuel ships?

Admiral COONTZ. The *Abarenda* is in commission now but will soon go out of commission; she is to be relieved. The *Ajax* is out of commission. The *Alameda* is to go out of commission and be sold. The *Arethusa* is to be retained. The *Robert L. Barnes* is to be retained. The *Brazos* is to be retained; the *Brutus* is to go out of commission; the *Caesar* is to go out of commission; the *Cuyama* stays in; the *Hector* has been wrecked; the *Jason* is with the Pacific Fleet; the *Kanawha* remains in commission; the *Kawah* is to go out of commission; the *Langley* has been turned into an aircraft carrier; the *Laramie* goes out of commission; the *Mars* goes out of commission to Norfolk; the *Mattole* not to go in; the *Maumee* is to go out of commission; the *Nanshan* is to be sold; fuel ship No. 17 (ex-*Natchez*) is not to go into commission; the *Neptune* goes out of commission; the *Nereus* remains in commission; the *Nero* has been sold; the *Orion* stays in commission; the *Patoka* stays in commission; the *Proteus* stays in commission; the *Ramapo* stays in commission; the *Rapidan* goes out of commission; the *Salinas* goes out of commission; the *Sapelo* remains in commission; the *Sarah Thompson* remains in commission; the *Saturn* goes out of commission; the *Sterling* has been sold; the *Trinity* stays in; the *Vulcan* is already out of commission.

The result of that statement is 4 colliers remain in commission and 10 oilers, a total of 14. The others are to go out of commission.

Mr. KELLEY. Four oilers and ten colliers?

Admiral COONTZ. No, sir; 4 colliers and 10 oilers remain in commission.

Mr. KELLEY. Now, have you the number of men?

Captain WILLIAMS. One thousand and seven for the oilers and 656 for the colliers.

Mr. KELLEY. How many colliers have you in commission now?

Admiral COONTZ. Five.

Mr. KELLEY. And you are taking one out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many oilers are in commission now?

Admiral COONTZ. Twenty.

Mr. KELLEY. And you will take out 10?

Admiral COONTZ. Yes, sir. In a case like that we are taking chances.

Mr. KELLEY. You can make the same table in this connection and insert it at this point.

Captain WILLIAMS. We will do so. (See p. 216.)

MINE SWEEPERS.

Mr. KELLEY. The mine sweepers are next.

Admiral COONTZ. We have there a vast collection of all sorts of ships. They are all put down here under the head of mine sweepers.

Mr. KELLEY. I presume they were used for that purpose during the war?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There is a large list of them there, and it seems to me they might go the way of the Eagle boats, into cold storage. You acquired this whole list during the war?

Secretary DENBY. Yes.

Mr. KELLEY. They do run into a lot of money.

Admiral COONTZ. We have 49 that have to be handled, and in order to get at them we will have to get the names.

Mr. KELLEY. Suppose you give the names of the ones you propose to keep.

Admiral COONTZ. I will run over the list: The *Anderton* is gone; the *Avocet* goes out of commission; the *Auk* is out of commission; the *Bellows* is gone; the *Bittern* will be retained; the *Bobolink* will be retained; the *Bouker* is gone; the *Brant* will be retained; the *Cahill* is gone; the *Cardinal* we will retain; the *Carola* is gone; the *Challenge* will be retained; the *Chewink* will be retained; the *J. Alvah Clark* is gone; the *James H. Clark* is gone; the *Comber* is gone; the *Coney* is gone; the *Conestoga* is gone; the *Cormorant* will be retained; the *Courtney* is gone; the *Crawford* is gone; the *Crest* is gone; the *Curlew* will be retained; the *Douglass* is gone; the *Dreadnaught* is out of commission; the *Easthampton* is gone; the *Edwards* is gone; the *Eider* out of commission; the *Falcon* will be retained; the *Favorite* is gone; the *Finch* will be retained; the *Flamingo* is out of commission; the *Gannet* will be retained; the *Garner* is gone; the *Genesee* will be retained; the *Genevieve* is gone; the *Goliath* is gone; the *Goshawk* is gone; the *Grabe* is out of commission; the *Gypsum Queen* is gone; the *Henlopen* is gone; the *Heron* is out of commission; the *Hinton* is gone; the *Hubbard* is gone; the *Ibis* is gone; the *James* is gone; the *Kingfisher* will be retained; the *Knickerbocker* is gone; the *Lapwing* is out of commission; the *Lark* will be retained; the *Leves* is gone; the *Longland* is gone; the *Lowell* is gone; the *Luce Brothers* is gone; the *McKens* is to go out of commission; the *Mallard* will be retained; the *Mansfield* is gone; the *Edward J. McKeever* is gone; the *Stephan W. McKeever* is gone; the *McNeal* is gone; the *Mendota* will be retained; the *Messick* is gone; the *Nahant* is gone; the *Oriole* is out of commission; the *Osborne* is gone; the *Osprey* is out of commission; the *Owl* in commission; the *Ortolan* will be retained; the *Palmer* is gone; the *Partridge* will be retained; the *Pelican* is out of commission; the *Pheasant* is gone; the *Penquin* will be retained; the *Penobscot* is gone;

the *Pigeon* is out of commission; the *Plover* is gone; the *Pontiac* is gone; the *Quail* will be retained; the *Rail* will be retained; the *Ranger* is gone; the *Raven* is gone; the *Redwing* is out of commission; the *Resolute* is gone; the *Robin* will be retained; the *Sadie Ross* is gone; the *Shenandoah* is gone; the *Spartan* is gone; the *Spray* is gone; the *Starling* is gone; the *St. Co. No. 2* is gone; the *Peter C. Struve* is gone; the *Surf* is gone; the *Sussex* is gone; the *Swallow* will be retained; the *Swan* is out of commission; the *Sanderling* is out of commission, the *Sandpiper* will be retained; the *Sappho* is gone; the *Sea Gull* will be retained; the *Sea Rover* is gone; the *Tanager* will be retained; the *Thrush* is out of commission; the *Teal* will be retained; the *Turkey* is out of commission; the *Tern* will be retained; the *Undaunted* will be retained; the *Victorine* is gone; the *Vireo* will be retained; the *Warbler* is gone; the *Whippoorwill* will be retained; the *Widgeon* is out of commission; the *Willet* is gone; and the *Woodcock* is out of commission. Our table shows 49 as the number remaining. Those are the mine sweepers, and I think we had better give it in a summary statement. Of the 49 that are left, 2 are out of commission to be transferred to the Coast and Geodetic Survey; 3 are loaned to the Shipping Board—

Mr. KELLEY (interposing). You are talking of all these craft here, Admiral COONTZ. I am talking about the 49 that are left.

Mr. KELLEY. After eliminating all of those that you have temporarily disposed of?

Commander HILL. In that same list there is a number of fleet tug mixed up with them.

Mr. KELLEY. We will take up the 49.

Admiral COONTZ. Two are out of commission to be transferred to the Coast and Geodetic Survey.

Mr. KELLEY. They would not be out of the 49?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Then, 49 would be what is left?

Admiral COONTZ. Out of the 49, 3 are loaned to the Shipping Board.

Mr. KELLEY. There are two out of commission and three are loaned to the Shipping Board?

Admiral COONTZ. Yes, sir. There are 10 more to go out of commission, leaving 34, and there are 5 with the Atlantic Train.

Mr. KELLEY. You have the number down to 34. Are there any more to go out?

Admiral COONTZ. There are 4 more to go out of commission, 2 in the Pacific and 2 in Asiatic waters, leaving 30.

Mr. KELLEY. There are only 30 mine sweepers in commission?

Admiral COONTZ. No, sir.

Mr. KELLEY. How many tugs are included in this list of 40?

Admiral COONTZ. Twenty-six of this outfit are mine sweepers.

Mr. KELLEY. Then, you will further reduce the 49 to 26?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There are no tugs included in the 26?

Admiral COONTZ. Yes, sir; there are.

Mr. KELLEY. Why can we not lay up all these boats for a year?

Admiral COONTZ. We have got to keep 10 of them in commission for practice as mine sweepers. We would be badly deficient if a war broke out and we did not have them. We have cut the number down to 10.

Mr. KELLEY. You will cut this whole thing to 10?

Admiral COONTZ. The number of mine sweepers goes to 10. We have some tugs in there that I would like to take up somewhere else. The mine sweepers themselves come down to 10.

Mr. KELLEY. You will furnish a list covering the mine sweepers?

Admiral COONTZ. We have 5 as seaplane tenders, 2 for submarine salvage, and 1 that the Bureau of Ordnance is using for experimental purposes. We will need 26 out of this whole number.

Mr. KELLEY. Including 10 mine sweepers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Captain Williams, you will put in a list covering the 10 mine sweepers?

Captain WILLIAMS. Five hundred and forty men are required for the 10 mine sweepers.

Mr. KELLEY. The other 16 will be put in cold storage, so that they will require no men.

Admiral COONTZ. Yes, sir, that is true. We will have to straighten this list out in regard to the tugs.

Mr. KELLEY. There are some tugs on this list?

Commander HILL. Yes, sir; there are some seagoing tugs.

Mr. BYRNES. What becomes of the 16 vessels?

Admiral COONTZ. They will be disposed of later on.

Mr. KELLEY. Let me see if I have this straight: This list, when I get it, will contain the names of 10 mine sweepers, or tugs, or whatever they may be?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Vessels that will be used for mine-sweeping purposes?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There will be a balance of 16?

Admiral COONTZ. Yes, sir, and we will come to them later.

Mr. KELLEY. We have the number down to 26, and there are 16 that are to be accounted for under some other heading?

Secretary DENBY. Yes, under fleet towing vessels.

Mr. KELLEY. These 10 mine sweepers require 540 men?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. I would like to state at this point, Mr. Chairman, that we have had time to straighten this out during the lunch hour, and the total number of those that we had checked or which should be checked is 30.

Mr. KELLEY. Thirty instead of 26?

Admiral COONTZ. Yes, sir. Some of them should appear in another place under the head of fleet tugs. Thirty is the number to be retained.

Mr. KELLEY. For mine sweepers?

Admiral COONTZ. No, sir; 10 are mine sweepers, 12 are fleet towing vessels, and 8 are tugs.

FLEET TOWING VESSELS.

Mr. KELLEY. Suppose you cover them separately in the table. Tell us about the necessity for 16 fleet towing vessels.

Admiral COONTZ. The fleet towing vessels are divided up, five for each fleet. At the present time we have 15, and we will reduce

that number to 12 by the 1st of July. Those are vessels of about 1,000 tons and they are oil burners. They tow targets and do general towing work about the fleets. They perform all sorts of towing operations, and they are more economical than large vessels. They carry on an average 45 men each. They are useful in laying mines, ranges, laying down buoys, taking up buoys in harbors, and in work of that character. We have used them for a long time, and find them very essential and of very great assistance to the fleet. They are economical on account of their small size.

Mr. KELLEY. How many did you have before the war?

Admiral COONTZ. I will have to look that up, because it may be that before the war we used battleships to tow, which was not very economical.

Mr. KELLEY. These mine sweepers and fleet towing vessels for the first quarter of this year cost \$1,481,264.

Admiral COONTZ. The number of mine sweepers has been materially reduced.

Mr. KELLEY. What about the balance of this year?

Admiral COONTZ. We have to use the fleet towing vessels with the fleet for the balance of the target practice, and I doubt if much can be saved before the end of the year in getting them out of commission.

Mr. KELLEY. At the present time you have 65 vessels of that character in service, and you propose to reduce the number to 26?

Admiral COONTZ. No, sir; there is something wrong there. On page 122 we find 49 vessels in commission, and we are reducing that number to 30.

Mr. KELLEY. Four are to be taken out of this list and put under tugs?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. We will see whether we will keep them there or not. You will make a list of the mine sweepers, showing the present complements and the number in the complement you are proposing for next year.

Captain WILLIAMS. I will do so. (See p. 216.)

Mr. KELLEY. I do not suppose any of these were in existence in 1916?

Captain WILLIAMS. No, sir; there may have been some tugs. We want that data for all classes?

Mr. KELLEY. We want it first for the mine-sweeping vessels, then for the fleet towing vessels. They will aggregate 26 in the two groups.

Captain WILLIAMS. Yes, sir.

Secretary DENBY. Leaving four to be accounted for.

Mr. KELLEY. There will be four to go over among the tugs.

CONVERTED YACHTS.

Mr. KELLEY. We have here a list of the converted yachts.

Admiral COONTZ. The *Actus* is out; the *Adelant* is out; the *Admiral* is out; as for the first *Admiral*, we will put a question mark there for the present; the second *Admiral* is out; the *Advance* is out; the *Aileen* is out; the *Akela* is out; the *Alaska* is out; the *Alcedo* is out; the *Amagansett* is out; the *Aphrodite* is out; the *Arcady* is out; the *Arctic* is out; the *Arcturus* is out; the *Ardent* is out; the *Atlant*

ut; the *Aurora* is out; the *Aztec* is out; the *Barnegat* is out; the *Barnett* is out; the *Bauman* is out; the *Bella* is out; the *Berkshire* is out; the *Bradley* is out; the *Breakwater* is out; the *Albert Brown* is out; the *Calumet* is out; the *Cambridge* is out; the *Caswell* is out; the *Thesapeake* is out; the *Cristobal* is out; the *Corona* is out; the *Corsair* is out; the *Courier* is out; the *Cytheria* is out; the *Dantzler* is out; the *Dempsey* is out; the *Despatch* is out of commission; the *Dorothea* is out; the *Druid* is out; the *Eagle* is out; the *Emeline* is out; the *Florence* is out; the *Galatea* is out; the *General Putnam* is out; the *Houcester* is out; the *Guinevere* is out; the *Harvard* is out; the *Hauoli* is out; the *Hawk* is in; the *Helenita* is out; the *Herreshoff No. 306* is out; the *Herreshoff No. 398* is out; the *Herreshoff No. 321* is out; the *Herreshoff No. 323* is in; the *Isabel* is in; *Johnson* out; *Joyance* out; *Kajeruna* out; *Kwasind* out; *Legonia No. 2* out; *Lydonia* out; *Machigonne* out; *Mann* out; *Manna Hatta* out; *Margaret* out; *May* out; *Mary Alice* out; *Mayflower* in; *McLane* out; *Merchant* out; *McClellan* out; *Merritt* out; *Montauk* out; *Nahma* out; *Narada* out; *Narragansett* out; *Naushon* out; *Niagara* ordered out of commission; *Nokomis* in; *Noma* out; *Nonpareil* out; *Old Colony* out; *Onward* out; *Overa* out; *Parthenia* out; *Patchogue* out; *Philips* out; *Piqua* out; *Pocomoke* in; *Porpoise* in; *Postmaster General* out; *Priscilla* out; *Raleigh* out; *Rambler* out; *Remlik* out; *Roamer* out; *Rodgay* out; *Samoset* out; *Santee* out; *Sapphire* out; *Satelite* out; *Satilla* out; *Scorpion* in; *Shadyside* in; *Shuttle* out; *Sialia* out; *Springfield* out; *S. P. 117* out; *S. P. 237* out; *S. P. 247* out; *S. P. 328* out; *S. P. 406* out; *S. P. 427* out; *S. P. 467* in; *S. P. 507* out; *S. P. 524* out; *S. P. 582* out; *S. P. 59* out; *S. P. 838* out; *Sultana* out; *Sylph* in; *Sylvia* out; *Tramp* in; *Vedette* out; *Vega* out; *Venetia* out; *Vergana* out; *Vixen* in; *Wacondah* out; *Wadena* out; *Wakida* out; *Wanderer* out; *Wasp* out; *Wenonah* out; *Winchester* out; *Xarifa* out; *Yacona* out; *Yankton* out; *Zara* out; and *Zoraya* out. That leaves in, I think, about seven.

Mr. KELLEY. There are none to add to that from any other list?

Admiral COONTZ. No, sir. I thought it might be advisable to put them in the total here because there will be four of them that are left.

Secretary DENBY. There are the *Scorpion*, *Mayflower*, and *Sylph*; you have three right there.

Colonel ROOSEVELT. The *Vixen*, the *Sylph*, *Shadyside*, *Scorpion*, *Pocomoke*—

Mr. KELLEY (interposing). Suppose you start with the first one that is left, the *Advance*.

Admiral COONTZ. The *Advance* is a district craft and we will come her later on, and the *Hawk* we have already counted; the *Herreshoff No. 323* is in a districts somewhere; the *Isabel* is in China; we put her there at the request of the State Department; the *Niagara*, I said, is ordered out of commission; the *Nokomis* is at Santo Domingo; the *Pocomoke* is a district craft and so is the *Porpoise*; the *Scorpion* is a station ship at Constantinople; the *Shadyside* is a district craft; the *S. P. 467* is a district craft; the *Sylph* is here in Washington, and the *Vixen* is at the Virgin Islands.

Mr. KELLEY. How many men will those 13 vessels take?

Admiral COONTZ. There will be only seven on this list—the *Scorpion*, *Nokomis*, *Vixen*, *Mayflower*, *Sylph*, and the *Isabel*.

Mr. KELLEY. Do you have in mind another one?

Admiral COONTZ. Yes, sir; is that what you have?

Captain WILLIAMS. I have the *Scorpion*, the *Nakomis*, the *Vixen*, the *Mayflower*, the *Sylph*, and you said the *Isabel*.

Admiral COONTZ. Making six.

Captain WILLIAMS. Yes.

Mr. KELLEY. And the other seven will not appear in this list but are transferred to the district craft?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will make a list of those six vessels with the proper tables, showing the information we want?

Captain WILLIAMS. Yes, sir. (See p. 216.)

Secretary DENBY. I think the title "yachts" is misleading.

Mr. KELLEY. What would you suggest?

DUTIES AND LOCATION OF YACHTS.

Secretary DENBY. They are naval vessels and I would put them where they belong. The President's yacht and the station yachts are here at Washington; I do not mean yachts but vessels; I do not like the word "yacht."

Mr. KELLEY. But they are in the nature of yachts.

Secretary DENBY. Yes; but the *Mayflower* was bought 20 years ago and she is not a converted yacht; the *Sylph* was originally a yacht. A yacht sounds like a luxury, which does not exist in the Navy, and if they could be called vessels it would be better.

Mr. KELLEY. Congress is very willing to provide for the President's yacht.

Captain WILLIAMS. We carry them as special-duty craft.

Secretary DENBY. That is good.

Mr. KELLEY. That is all right.

Secretary DENBY. I merely thought the word yacht did not belong there.

Mr. KELLEY. I do not think it makes very much difference.

Secretary DENBY. They are not pleasure yachts and that is what I am getting at. The *Nakomis* is simply a station ship at Santo Domingo; the *Isabel* is doing patrol work in China, and the *Sylph* is used as a station ship here in Washington; it is used by the President and by the State Department in carrying representatives of foreign Governments, and it certainly does not constitute a yacht.

Mr. KELLEY. There is no disposition to question the use of them.

Secretary DENBY. I simply wanted to straighten out the names of these ships.

Mr. KELLEY. I think perhaps it might be well to make a statement for the record showing what the vessels are for.

Mr. OLIVER. What do I understand the Secretary suggests?

Mr. KELLEY. He suggests calling them special-duty craft, so that Captain Williams in making his tables can put them in as special-duty craft.

Admiral COONTZ. The *Mayflower*, a converted yacht of the sea-going type, is in service as a vessel for the President's official use; the *Sylph*, a small converted yacht suitable for service in inland waters, is used as a Navy Department tender for use by the department in the transportation by water to points on the Potomac River and Chesapeake Bay of the United States and foreign officials on

official duty and ceremonies, and, incidentally, occasionally used by the Secretary.

Secretary DENBY. And for the official use of the Secretary of the Navy.

Mr. KELLEY. I do not think there is any desire to criticize the use of any of these vessels.

Admiral COONTZ. The *Nokomis* is used in the Dominican Republic, with headquarters at Santo Domingo city. It is a part of the naval force of the United States forces occupying the Dominican Republic and is under the orders of the military governor. It is also used by the governor in the transportation of personnel and material between garrisons at coast points in the Dominican Republic in connection with the military occupation. The *Vixen* is at the naval station, St. Thomas, Virgin Islands. It is used as a station vessel and houses the naval personnel attached to the small naval station at St. Thomas, and incidentally, furnishes a means whereby the governor, a rear admiral, United States Navy, who is also commandant of the naval station, can visit frequently the other islands of the group in connection with his duties. The *Scorpion* is employed as station ship at Constantinople. She is what is commonly known as the stationaire and was formerly used by the ambassador to Turkey in that service. She is now flying the flag of Rear Admiral Mark Bristol, United States Navy, United States high commissioner to Turkey, who is also in command of the United States naval force in Turkey. It has been the practice to have this vessel there for many years. The *Isabel* is in use as the flagship of the commander of the naval forces on the Yangste River, China; he has a large number of gunboats under his command, and each nation carries a flag officer in a similar position there, and the British have a vice admiral.

Secretary DENBY. It is called the Yangste patrol.

TUGS.

Mr. KELLEY. Now we come to the tugs.

Admiral COONTZ. The *Adirondack* out; the *Algorma* in; the *Alleeny* in; the *Arapaho* to go out of commission; the *Aspinet* out; the *Agaduce* to go out of commission; the *Catawba* in; the *Cayuga* in; the *Chemung* in; the *Clark* out; the *Clio* in; the *Concord* in; the *Conook* in; the *Conwell* out; the *Carrabassett* ordered out of commission; the *Cullen* out; the *Fearless* out; the *Fortune* ordered out of commission; the *Gorgona* out; the *Goucher* out; the *Grampus* ordered out of commission; *Hercules*, the first, out; *Hercules* again, in; *Jawatha* out; *Inca* in; *Iuka* in; *Iwana* in; *Iroquois* in; *Kalmia* in; *Mosauqua* in; *Kewaydin* in; *Koka* in; *Lively* in; *Mahopac* in; *Mariner* in; *Massasoit* in; *McDougald* out; *Modoc* in; *Mohave* in; *Mohawk* in; *Montcalm* in; *Napa* in; *Narkeeta* in; *Nausett* in; *Navajo* in; *Navigator* in; *New England* out; *Nottaway* out; *Nyack* out; *Oneonta* out; *Ontario* in; *Osceola* in; *Passaic* in; *Patapsco* in; *Patuxent* in; *Pawnee* in; *Pawket* in; *Penacook* in; *Pentucket* in; *Peoria* out; *Pierce* ordered out of commission; *Pinola* in; *Piscataqua* in; *Potomac* in; *Progressive* in; *Rapido* out; *Relief* out; *Rocket* in; *Sago* in; *Sagamore* in; *Samo* ordered out of commission; *Sciota* in; *Sebago* in; *Sonoma* in; *Soto-*

yomo in; *Standish* out; *Sunnadin* in; *Tacoma* out; *Tadousac* out; *Tatnuck* out; *Tavernilla* out; *Tecumseh* ordered out of commission; *Tillamook* in; *Tinicun* out; *Traffic* ordered out of commission; *Transfer* in; *Triton* in; second *Triton* out; *Tug No. 40* out; *Tug No. 41* out; *Tug No. 43* out; *Tug No. 46* ordered out of commission; *Tug No. 47* ordered out of commission; *Tug No. 48* ordered out of commission; *Tug No. 49* in; *Tug No. 50* in; *Tug No. 51* ordered out of commission; *Tug No. 52* ordered out of commission; *Tug No. 53* ordered out of commission; *Tug No. 54* in; *Tug No. 55* ordered out of commission; *Tug No. 56* in; *Tug No. 57* ordered out of commission; *Tug No. 58* out; *Tug No. 59* out; *Tug No. 60* out; *Tug No. 61* in; *Tug No. 62* ordered out of commission; *Tug No. 63* ordered out of commission; *Tug No. 64* ordered out of commission; *Tug No. 65* ordered out of commission; *Tug No. 67* ordered out of commission; *Tug No. 68* in; *Tug No. 69* in; *Tug No. 71* out; *Tug No. 72* out; *Tug No. 73* out; *Tug No. 74* ordered out of commission; *Tug No. 75* out; *Tug No. 76* out; *Tug No. 77* out; *Tug No. 78* out; *Tug No. 79* ordered out of commission; *Tug No. 80* ordered out of commission; *Tug No. 81* in; *Tug No. 82* ordered out of commission; *Tug No. 83* ordered out of commission; *Tug No. 84* ordered out of commission; *Tug No. 85* out; *Tug No. 86* in; *Tug No. 87* in; *Tug No. 88* in; *Tug No. 89* in; *Tug No. 90* in; *Tug No. 93* out; *Tug No. 94* out; *Tug No. 95* out; *Tug No. 97* in; *Tug No. 98* in; *Tug No. 99* in; the *Umpqua* in; the *Unadilla* in; the *Uncas* ordered out of commission; the *Vigilant* in; the *Wahneta* in; the *Wandank* in; the *Wando* in; the *Wicomico* in; the *Wompatuk* in; the *Wooley* in, and the *Yuma* in.

MR. KELLEY. That makes how many tugs in? And there are four more to come out of that other list and go in here?

Admiral COONTZ. Yes, sir.

MR. BYRNES. There are 78 in, as I counted them.

MR. KELLEY. And four added.

MR. BYRNES. No; I did not add four.

Admiral COONTZ. The correct number is 73; 23 plus 50.

MR. KELLEY. Including the four from the other list?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. And some that appear on another miscellaneous list besides.

Admiral COONTZ. But not to be counted here; the total is 23 plus 50.

MR. KELLEY. Why do you divide them in that way?

Admiral COONTZ. Twenty-three are seagoing and the others are of the other kind.

MR. OLIVER. Would it not be helpful if Admiral Coontz in revising his statement, should set out the number that are in and state that all the others are out, giving the number?

Admiral COONTZ. I can do that.

MR. OLIVER. Instead of following one after another and saying in and out, just set out the number.

MR. KELLEY. Probably it would be just as well to put in a table saying, "The following tugs are in," and "The following tugs are out."

Secretary DENBY. Those that are in and those that are out.

Mr. KELLEY; Yes, and I think Mr. Oliver's suggestion is a very good one.

Admiral COONTZ. I will have to tell you that we had to do this in a very last night, and the final figures are 23 and 50.

Mr. KELLEY. You have in mind the suggestion made by Mr. Oliver, that you simply insert a table showing that the following tugs are in the following tugs are out?

Admiral COONTZ. Yes, sir. (See p. 216.)

Mr. KELLEY. And, Captain Williams, you put in a table giving number of men and how many men you estimate?

Captain WILLIAMS. I have not the personnel subdivided that way; they are of different sizes and different sorts and their complements vary from 5, 15, and 25, so that I would rather insert it later.

Mr. KELLEY. Can you not give us an idea of it now?

Captain WILLIAMS. About 2,800.

Mr. KELLEY. That would average 40 men on a tug.

Commander LEAHY. There are 73 tugs.

Mr. KELLEY. But they would not average 40 men?

Commander LEAHY. Some of them are seagoing tugs.

Captain WILLIAMS. It would be less than 30.

Mr. KELLEY. We will say 2,000 as a guess and the table will show the actual number on each one.

Captain WILLIAMS. Absolutely. (See p. 216.)

Mr. KELLEY. Now, Admiral Coontz, how many tugs did we have before the war?

Admiral COONTZ. I suspect we had almost that number, sir; but we will have to verify that. There were 49 listed in 1916.

Mr. KELLEY. What have you to say about that, Mr. Reed?

Mr. REED. There are 49 on the list.

Mr. KELLEY. The fleet tugs, I suppose, are used for the large ships mostly, are they not?

DUTIES OF TUGS.

Admiral COONTZ. If you have five minutes I would like to read a letter on that because I think it is very important. It sounds big when you say we have 200 naval stations, but I do not think it is big after all. This seems like a large number of tugs, but I would like to read what the commandant at Philadelphia says, in order to give you an idea what those tugs do.

Mr. KELLEY. Can you not paraphrase it so as to boil it down?

Mr. OLIVER. I think that might be important.

Mr. KELLEY. Very well; go ahead.

Admiral COONTZ. (Reading:)

In general the various types of district craft consist of—

- 1 Regular seagoing tugs.
- 2 Smaller harbor tugs.
- 3 Freight-lighter tugs.
- 4 Fuel-oil barges.

These are the only type of craft which require personnel constantly on board for operations.

Seagoing tugs assigned to the district as such are ocean-going tugs used for heavy work on long distance ocean trips, such as to Panama; for salvage and rescue work in case of S O S calls from vessels in distress in the vicinity; for radio compass calibration work; and for shorter interdistrict towing. In the Philadelphia district, for example, there were two of these tugs, one of which was always stationed at Cape May

ready for emergency work with distressed shipping around the Capes of the Delaware. Numerous and frequent calls have been made upon these craft; they have responded readily and have many times over saved not only the cost of their operation, but probably the cost of the tug itself in its salvage work with naval and merchant vessels around their station in periods of distress due to weather or accident. In the past these tugs have fully justified themselves, but one has been withdrawn to reduce expense.

The department ordered one of those taken out.

3. Harbor tugs are a smaller type of craft and are part of a navy-yard equipment but are nonseagoing and are built for operating on inland waters. Their use is confined to the movements of shipping of all kinds around the water fronts at the yard for the purpose of berthing for repairs, in case of fire along the water front, or in emergency in bad weather, all of which work would have to be done by civilian tugs, provided they were available when needed.

4. Lighter-tugs are in effect combined freight barges and tugs carrying their own propelling machinery. These tugs are particularly valuable and useful in transferring stores, supplies, and provisions in large quantities from shore bases to ships of the fleet in the vicinity of navy yards, naval bases, or stations. Their carrying capacity as to freight is very much larger in every way than any of the two foregoing craft, but their seaworthiness and handiness as maneuvering craft for other vessels are quite separate and distinct and not so good as the other craft.

5. Fuel-oil barges are in effect small self-propelled, slow-moving oil-tank steamers about the size of a tug, and are used to transfer oil from local oil centers or from navy yards or stations or civil sources of supply to the fleet or to the yard using them. Their work is quite separate and distinct from any of the foregoing tugs.

6. The question of the reduction of the number of local craft in the district has been given very careful consideration and the number of these craft has been considerably reduced, and, in fact, in some localities has been cut in half. When it comes to the question of the entire elimination of these craft and substituting therefor civilian tugs hired for the occasion, there are several factors which must be taken into consideration.

Mr. KELLEY. We do not want to hire any tugs.

Admiral COONTZ. We made an analysis of the cost of maintaining the tugs, and it came to 50 per cent more by the use of civilian personnel, and he actually analyzed the figures to determine whether the fuel oil barge should be laid up, and finally he came to the conclusion—

Unless the Government is willing to carry its own insurance on vessels at a yard cost from fire or storm, a minimum number of tugs should be maintained, and the cost of these manned by naval crews is 55 per cent less than commercial tugs on the same service.

In other words, they put out fires. Now, in this connection, I would like to call your attention to two facts: You have not read any large fires in navy yards for a long time, and it has been some time since you have read of any great disasters on either of our coasts. That is because we get out and help these people when they have a boat there. Also, the radio station which we maintain at New York allows those fellows to know where they are in a fog or any other time. They now come up the Ambrose Channel without any difficulty. Of course, all of this costs money, but I do not believe we have too many of these boats, considering the services they render. As I have said, this looks like a big number, but you must remember we had 49 before the war. The boats we have are busy all the time but there is no overtime about them. They were formerly manned by civilian crews, and when it came to half past four they quit and there was a call for overtime, so that we had to come to this, and we feel it was the best thing to do.

Mr. KELLEY. Have you had a survey of any kind made as to the number of hours the tugs were used?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. About what proportion of the time are they used?

Commander HILL. We picked two weeks at random; they did not know what weeks we were going to pick, and we told four districts to analyze what their tugs did during those weeks and compare the charges with civilian tugs, to ascertain what would be the charge against naval tugs and the actual cost of the personnel and everything of that kind. Now, here are figures as to tugs in the third district of New York—

Mr. KELLEY (interposing). The only question we want to determine is whether or not we have too many for the service they are called upon to render.

Admiral COONTZ. I do not believe we have, because in pursuance of the Secretary's orders to try to cut out 10,000 men I have just used the ax on them and we have gotten down to this.

Mr. KELLEY. How many have you now?

Admiral COONTZ. I read all of those that went out of commission as I went down the list, and there were 73 left.

Mr. BYRNES. And you propose to keep those 73?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And that is the number you now have?

Admiral COONTZ. No, sir; we have more than that now, but they are going out of commission; I must have read 30 or more that went out of commission in the last month.

Mr. KELLEY. You think you have something like 100 now in commission?

Admiral COONTZ. Yes, sir.

Mr. OLIVER. What is the greatest number of tugs you maintain at any one station?

Admiral COONTZ. It is probably at New York.

The highest number was 118 before we began to cut. Then we reduced the number to 102.

Mr. BYRNES. It is better to keep your tugs with the crews as long as you have enough work to demand the services of the tugs, but if you have tugs at some place where there is not sufficient demand for them to occupy all their time, it might be better then to hire a tug?

Colonel ROOSEVELT. Yes, sir.

Mr. BYRNES. That is what you are doing?

Colonel ROOSEVELT. Yes, sir.

Admiral COONTZ. Another thing, these tugs are there during the day and night every day in the year and are ready for a fire or anything which turns up. Here are the reports from all the districts skinned down to the lowest limit that we feel safe.

Mr. KELLEY. It appears that you have 118 tugs the first three months of the year, at a cost of \$1,145,295.

Admiral COONTZ. Yes, sir. They have been reduced from 118 to 102, and now for next year to 73.

STATEMENT SHOWING ALLOCATION AND COMPLEMENTS OF TUGS.

Mr. KELLEY. Will you please let it appear in your statement just where these tugs are?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Will you put into the record a table of the 73 tugs Admiral COONTZ. Yes, sir.

Mr. KELLEY. I think you had better put in a table, also, covering all of these tugs, so that we will have a comparison, with the usual table of complements.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Would it be possible to differentiate those that are used for other than naval purposes?

Admiral COONTZ. Yes, sir; if there are any.

Mr. KELLEY. Those used for Coast Guard services?

Admiral COONTZ. Of course, those are incidental to the other duties but I will put them separately.

Fleet, harbor, district, and motor tugs.

First district:

Fleet tugs—	Complement
Mohave.....	20
Patapasco.....	30
District tugs—	
Nottoway.....	9
Iwana.....	8
Penacock.....	9
James Wooley.....	(1)
Harbor tugs—	
No. 70.....	8
No. 71.....	8
No. 73.....	(1)
	9

Third district:

Fleet tugs—	
Lykens.....	30
Sagamore.....	20
District tugs—	
Cayuga.....	8
Narkeeta.....	8
Pentucket.....	8
Harbor tugs—	
No. 54.....	0
No. 56.....	0
No. 61.....	8
No. 67.....	8
No. 72.....	8
No. 81.....	8
	10

Fourth district:

Fleet tug, Kalmia.....	30
District tugs—	
Modoc.....	8
Nausett.....	8
Samoset.....	8

Fifth district:

Fleet tug, Keywaydin.....	30
District tugs—	
Advance.....	8
Hercules.....	8
t.....	8
cl.....	8
	8
	8
	8

	Complement.
Sixth district:	
Fleet tug, Umpqua.....	30
District tug, Sebago.....	9
	<hr/> 39
Seventh district:	
Fleet tug, Bay Spring.....	24
District tug, Saco.....	9
	<hr/> 33
Eighth district:	
Fleet tug, Allegheny.....	24
Ninth district:	
Fleet tug, Koka.....	30
Motor tugs—	
No. 86.....	4
No. 88.....	0
	<hr/> 34
Twelfth district:	
Fleet tugs—	
Tillamook.....	12
Undaunted.....	22
District tugs—	
Lively.....	8
Navigator.....	12
Unadilla.....	11
Vigilant.....	8
Motor tugs—	
No. 94.....	4
No. 95.....	5
No. 96.....	0
No. 99.....	5
	<hr/> 87
Thirteenth district:	
Fleet tugs—	
Challenge.....	14
Iroquois.....	20
Mahopac.....	30
District tugs—	
Pawtucket.....	8
Sotoyomo.....	8
Motor tug, No. 98.....	4
	<hr/> 84
Fourteenth district:	
Fleet tugs—	
Keosanqua.....	39
Sunnadin.....	39
Harbor tugs—	
No. 49.....	8
No. 50.....	8
Motor tugs—	
No. 90.....	7
No. 93.....	2
	<hr/> 103
Fifteenth district:	
Fleet tugs—	
Patuxent.....	30
Sciota.....	20
	<hr/> 50
Sixteenth district:	
Fleet tug Piscataqua.....	44
District tug Wompatuck.....	18
No. 92.....	8
	<hr/> 70
Washington Navy Yard:	
District tugs—	
Catawba.....	12
Mendota.....	

Indianhead, Md.:	Complement
District tug Triton.....	12
Total.....	96
Fleet tugs.....	23
District tugs.....	23
Harbor tugs.....	11
Motor tugs.....	12
Fleet tugs with fleet (Contocook, Sanoma).....	7
Total.....	73

Mr. KELLEY. This seems like a large sum. At this rate you will get about \$4,500,000—it will be very much less?

Colonel ROOSEVELT. It will be very much less; yes, sir.

Secretary DENBY. It is a tremendous department and there are a good many stations here and abroad.

MOTOR PATROL SHIPS.

Mr. KELLEY. We now come to the motor patrol.

Admiral COONTZ. I think there are only six of those left.

Mr. KELLEY. If you will just put in a list of those to be kept in.

Admiral COONTZ. Those to be kept in. The *Asp*, the *Clarinda*, *Constance II*, *Privateer* and *Zumbrota* are to be retained in commission. That is five.

Mr. KELLEY. That is not a large expense, of course, What are they for?

Admiral COONTZ. The *Zumbrota* is the only vessel of light draft that can travel around in the seventh naval district with headquarters at Key West, which embraces many hundreds of miles of sea. She carries five men.

Mr. KELLEY. What does she travel around for?

Admiral COONTZ. They have a large number of naval reservists in the district, for inspection or any sort of duty. She has to go to these places and she performs any other little duty that may be necessary around the naval station at Key West. The *Clarinda* is in the sixth naval district, *Constance II* is in the first naval district. The *Privateer* is a small craft in New York Harbor.

Secretary DENBY. She is the only vessel that the commandant of the yard has.

Admiral COONTZ. The last time I was there the *Privateer* took me to the Hook and took me out to Rockaway.

Mr. KELLEY. You want to keep five motor patrol vessels?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And about how many men?

Captain WILLIAMS. Forty-five men.

SPECIAL TYPE SHIPS.

Mr. KELLEY. Now, the special types?

Admiral COONTZ. The special types—these are a very much mixed collection. The *Aroostook* is with the air force on the Pacific. The *Baltimore* is the flagship of the mine squadron, Pacific Fleet.

Mr. KELLEY. You do not need the *Baltimore*?

Admiral COONTZ. Next comes the *Black Hawk* a destroyer tender. The *Shawmut* is with the mine force on the Atlantic. The *Vestal* is the repair ship on the Pacific. The *Vesuvius* goes out of commission. In other words, we want to keep five of those.

Mr. KELLEY. The *Canandaigua* comes out?

Admiral COONTZ. Yes, sir. The *Roanoke* returned to owners and San Francisco is to be sold. The *Hoosatic* returned to owners. The *Wright* is there, but will go to another place, because she has been made an aircraft tender.

Mr. KELLEY. The *Black Hawk* comes out of this list?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And goes into the list of destroyer tenders?

Admiral COONTZ. Yes, sir.

SHIPS USED AS MINE LAYERS.

Mr. KELLEY. Tell us about the *Baltimore*?

Admiral COONTZ. We have two vessels for mine laying, one the *Shawmut* and the other is the *Baltimore*. We carry a small force in the Pacific and a small force in the Atlantic for the training of men for mine laying.

Mr. KELLEY. What I am getting at is, you said that this was the flagship for the mine laying force?

Admiral COONTZ. Yes, sir. She is a mine layer herself.

Mr. KELLEY. You do not have any mine laying vessels?

Colonel ROOSEVELT. She lays mines.

Admiral COONTZ. In all the service we now have 18 which we are reducing to 12, 2 of them being the *Baltimore* and the *Shawmut* and the others being the 10 mine layers.

Mr. KELLEY. Is there any classification of the mine layers?

Admiral COONTZ. No, sir. The other 14 destroyers we have ready spoken of in the summary of destroyers, but not in detail.

Mr. KELLEY. The destroyers are used as mine layers?

Admiral COONTZ. Yes, sir; 14.

Mr. KELLEY. Why not put the *Baltimore*, *Shawmut* and the other vessels to be used for mine-laying purposes in one group and call them mine-laying vessels?

Admiral COONTZ. That is the way we keep them in our list.

Mr. KELLEY. Please make the table on that basis.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. About how many men will those 12 vessels require?

Admiral COONTZ. The *Baltimore*, *Shawmut*, and 10 light mine vessels.

Captain WILLIAMS. The *Baltimore*, *Shawmut*, and the 10 mine vessels.

Mr. KELLEY. And those two vessels?

Captain WILLIAMS. One thousand six hundred and ninety, all told.

Mr. KELLEY. About 350 men apiece?

Captain WILLIAMS. Some have more than that. The *Shawmut* is 369, the *Baltimore* 334, and the other 10 vessels 950.

Mr. KELLEY. You want 1,653 men, as your figures show now, for mine-laying vessels?

Captain WILLIAMS. That is right.

Mr. KELLEY. Please put in at this point a list of the 12 ships that are to be used for mine-laying purposes and the number of men now the number in 1916 for that purpose, if there were any, and the number that you ask for.

Captain WILLIAMS. Yes, sir. (See table, p. 216.)

Mr. KELLEY. I wonder if it is necessary to have two mine-laying squadrons, if that is the right name, in peace time?

Admiral COONTZ. We have a pretty small number, considering how we have to jump out in war. I suppose we had 70,000 men in the mine business during the war.

Mr. KELLEY. I know, but you were in a big way then.

Admiral COONTZ. Yes, sir.

Commander HILL. There is one point to remember. The mine layers are being trained. The 10 are divided into 4 in the Atlantic, 4 in the Pacific, and 2 for the Asiatic Fleet, for an entirely new phase of mine laying. There are mine layers which accompany the fleet and which run in advance of the fleet and which cover wide areas in the approach of the enemy and drop floating mines and things of the sort. It is entirely different.

SPECIAL NONPOWERED SHIPS.

Mr. KELLEY. We now come to the special nonpowered ships.

Admiral COONTZ. Take them all out, sir.

Mr. KELLEY. They all come out except one ship?

Admiral COONTZ. They all come out.

Mr. KELLEY. All the way down?

Admiral COONTZ. Yes, sir. The naval overseas tankers go out.

Mr. KELLEY. Where are they?

Admiral COONTZ. On page 143.

Mr. KELLEY. Naval vessels, transportation service ships—refrigerator?

Colonel ROOSEVELT. They have all been taken out already.

Mr. KELLEY. And the seagoing barges go out?

Colonel ROOSEVELT. Yes, sir.

Admiral COONTZ. Canadian drifters and trawlers go out.

Mr. KELLEY. Unserviceable for war purposes, those are relics you have to keep up?

Admiral COONTZ. The old *Constellation* takes two men and so do the *Constitution*. They come under shore stations.

Captain WILLIAMS. A couple of men each.

Admiral COONTZ. The *Bath* is to be retained.

Mr. KELLEY. They are old relics, historical, and that is perfect all right.

Admiral COONTZ. Part of these are for other duties. We keep the *Bath*, the *Beaufort*, and the *Hartford*.

Mr. KELLEY. All the others come out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Does the *Granite State* come out?

Admiral COONTZ. We have handled one as a receiving ship.

Mr. KELLEY. That leaves the old *Constellation*, the old *Constitution* and the *Hartford*?

Admiral COONTZ. Is the *Southery* a receiving ship?

Captain WILLIAMS. A receiving ship.

Admiral COONTZ. That will come under the shore stations.

Mr. KELLEY. You can just give us a list of those. I do not suppose the number of men will be material.

The next are the ex-foreign?

Admiral COONTZ. The *Bath*—

Mr. KELLEY (interposing). Everything down to the *Bath* is out?

CARGO SHIPS.

Admiral COONTZ. Yes, sir. The *Bath* is a cargo vessel, the *Beaufort* is a cargo vessel, the *Bridgeport* is a destroyer tender. I want to check up later to see if we have not already given the *Bridgeport*.

Commander HILL. She is one of the six destroyer tenders, and the *Camden* is the seventh submarine tender.

Admiral COONTZ. The *Houston* is ordered out of commission. The *Kittery* is a small cargo vessel.

Mr. KELLEY. We have not mentioned her anywhere else?

Admiral COONTZ. No, sir. The *Newport News* is a cargo vessel. The *Pensacola*—

Mr. KELLEY (interposing). Have we not mentioned the *Pensacola*?

Admiral COONTZ. Yes; but we have not put her down. The *Quincy* is ordered out of commission.

Mr. BYRNES. What is the *Pensacola*, a cargo vessel?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The *Rappahannock*?

Admiral COONTZ. I think we have her already in another list.

Mr. KELLEY. The *Savannah*. Some of these vessels appear twice.

Captain WILLIAMS. We have four not mentioned elsewhere.

Mr. KELLEY. And five, the *Pensacola*.

Captain WILLIAMS. Five hundred and ninety men.

Mr. KELLEY. What will you do with the rest of these ships?

Admiral COONTZ. We have not had them. I never heard of most of them.

Mr. KELLEY. Most of them were turned back to the owners after the war.

Colonel ROOSEVELT. How many have you on your list?

Mr. KELLEY. Five.

Admiral COONTZ. I should like to make a correction. These come under the same head of ships from the Shipping Board. We have three in addition to those mentioned.

Mr. KELLEY. Old ones?

Admiral COONTZ. The *Capella*, *Sirius*, and the *Vega*.

Mr. KELLEY. Those ought to come in right now as a part of the auxiliary cargo ships carried in the other list.

Admiral COONTZ. They take the place of those that we just poke of.

Mr. KELLEY. This should be a table called cargo ships.

Admiral COONTZ. That makes 273 more men for the *Capella*, *Sirius*, and *Vega*.

Mr. KELLEY. Those are cargo ships?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. Eight hundred and sixty-three men all told.

Mr. KELLEY. What are those ships for? You have supply ships and store ships and repair ships and every other kind of ship and now you have cargo ships with 863 men?

Admiral COONTZ. Of course, we spoke of cargo ships a while ago when we did not have the full list. We have, as I said, these materials and outfits to be carried. There are about 10,000 tons waiting to go to the Pacific.

Mr. KELLEY. How do you distinguish between these transports?

Colonel ROOSEVELT. One is personnel and the other matériel. Primarily the transports are for the personnel and not for the matériel.

Mr. KELLEY. What are those at the navy yards, for matériel?

Colonel ROOSEVELT. Transports for personnel.

Secretary DENBY. Perhaps, we saved \$45,000 in transportation.

Colonel ROOSEVELT. We saved \$80,000 the first trip of the *Northern Pacific*.

Admiral COONTZ. From San Francisco to the East. The majority of our men still comes from east of the Mississippi River and when their enlistments expire—naturally the most of them are on the Pacific—we bring them East.

Mr. BYRNES. You bring them to the Atlantic?

Admiral COONTZ. Yes.

Mr. BYRNES. Is that the difference?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What do you mean by saving? Did you count in the cost of operation of the vessel, or simply say this vessel is coming anyway and we will bring these people?

Admiral COONTZ. I do not know. The colonel saved \$80,000 or more.

Colonel ROOSEVELT. As I recall, I did exactly what the chairman has suggested. I was given the figure of \$140,000. I said immediately, "Does not the ship cost anything to run?" and my memory is that they took off sixty odd thousand dollars, but that is memory. Mr. Chairman.

Mr. KELLEY. This is quite an additional list of cargo ships?

Admiral COONTZ. It is, Mr. Kelley.

Mr. KELLEY. You did not have any of this type of ship before the war?

Colonel ROOSEVELT. Oh, yes.

Admiral COONTZ. Yes, sir; we did. I know right now the *Buffalo*.

Secretary DENBY. We had three running down to the West Indies. In the old days, before the war, they were not manned by the naval personnel.

Admiral COONTZ. It is no desire on our part to do this and when we felt we could we pulled 7 out of the 19.

Mr. KELLEY. You are running how many now?

Admiral COONTZ. Twelve transports and cargo vessels the 1st of July.

Secretary DENBY. They also carry cargo.

Admiral COONTZ. And are always full.

Mr. KELLEY. I can see in war time, of course, that you would need many ships like this.

Admiral COONTZ. I would like to give you one example. Suppose the first class of the Naval Academy graduates and suppose they

are all taken into the service, 500, 300 would have to go to the Pacific and if carried across the country there would be \$250 railroad fare. If you put them aboard one of these vessels you will take them around and save all of that \$75,000.

Mr. KELLEY. Less what it costs?

Admiral COONTZ. Less what it costs. There is a fair sample of the boat saving. That is the kind of thing the Department claim they are watching all the time.

Mr. BYRNES. What would you take on a trip of that kind, just general cargo?

Admiral COONTZ. We would take almost anything up to 16-inch guns. The *Nevada* has to be regunned. Her guns are at Philadelphia. By this method she does not have to go to the eastern coast to get them.

Mr. BYRNES. A considerable part of the armament would be manufactured near the east coast?

Admiral COONTZ. Yes, sir. Take, for instance, clothing, and the clothing factories are on the east coast. The clothing must go out to the Pacific. We could put it on board at much saving on the exorbitant freight rates. Everything of that character comes along.

Mr. KELLEY. Now, the light tenders are all out?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And the Coast Guard has all gone back?

Admiral COONTZ. Yes, sir; and the Coast and Geodetic Survey is gone.

SHIPS MANNED FOR BUREAU OF FISHERIES.

Mr. KELLEY. Has the Bureau of Fisheries all gone back?

Admiral COONTZ. I would like to state for the record, in reference to the Bureau of Fisheries, that the law requires the Navy Department to man, with officers and men, the Bureau of Fisheries ships. There are two that will have to be manned, the *Albatross* and *Fish Hawk*, which carry about 125 men. That is another one of those things that we do not care to handle, but it is put upon us under the law.

Mr. BYRNES. We were discussing that yesterday, and I think the Navy should be paid for that. There was another item that Mr. French called attention to where the Navy should pay the Interior Department for its services in connection with fuel oil.

Mr. KELLEY. Are not those two vessels of the Fish Commission operating all the time?

Admiral COONTZ. No, sir; one of them is now out of commission, but it is going into commission in the next fiscal year.

Mr. KELLEY. How many men do you assign to those vessels?

Admiral COONTZ. We have 44 assigned to one and 81 to the other.

Mr. KELLEY. For the next fiscal year how many do you estimate?

Admiral COONTZ. I should say that it would average 100.

Secretary DENBY. The Secretary of Commerce expects to have two of them in commission next year.

Admiral COONTZ. We will use 125 men in that way.

MISCELLANEOUS SHIPS.

AMMUNITION SHIPS.

Mr. KELLEY. Suppose we take the miscellaneous ships.

Admiral COONTZ. I have only the *Nitro* and *Pyro*, which are ammunition ships built by the Government and now engaged carrying ammunition, particularly to the Pacific coast and the Philippines.

Mr. KELLEY. All of the rest of those ships are out?

Admiral COONTZ. Yes, sir; they are out.

Captain WILLIAMS. They require 354 men.

Mr. KELLEY. For those two ships?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What are they for?

Admiral COONTZ. They were built especially for carrying ammunition. We will take the case of the U. S. S. *California*, which is built on the Pacific coast and has never been around to the coast. You can imagine the hundreds of tons of ammunition that she must carry, and one of these vessels carries it around the coast. From time to time powder must be broken down and gone over, fixed up, and these ships would bring the powder to the point where it was to be attended to.

Mr. KELLEY. One would be all that you would need next year to carry ammunition, would it not?

Admiral COONTZ. No, sir; we are running two at full tilt. If the time should come when one could be dropped out, we would do so quickly.

Mr. KELLEY. How many men do they require?

Captain WILLIAMS. Three hundred and fifty-four.

RADIO STATION SUPPLY SHIPS.

Admiral COONTZ. There are three ships that do not show on the list at all. One is the *Gold Star*, which is a vessel that supplies naval radio stations in Alaska. It is to relieve the U. S. S. *Satsuma*, which is to be sold. That ship is nearly 50 years old. This ship supplies the radio stations in Alaska, which are located as follows: Paul, St. George, Dutch Harbor, Kodiak, Seward, Cordova, Juneau, Ketchikan, and the compass stations at Cape Hinchinbrook and Soapstone Point. We carry on those stations, of course, all over the world, and I do not mind saying that we control our communications in central Europe at the present time not only for our own people but for our commercial people. We have several times attempted to draw out, but Mr. Hoover has asked us to remain. They say there are 1,000 American business men in Constantinople, and the communications company would not take a secret message for them. We send our messages by way of France, and down to Constantinople. We have about 20 men in that business in Europe. I might say that the *Gold Star* does work for all of the other departments in Alaska, including helping out the sick on the seal islands, etc.

Mr. KELLEY. You are referring to the *Gold Star*?

Admiral COONTZ. Yes, sir.

Captain WILLIAMS. She requires 97 men.

Mr. KELLEY. What are the other two ships?

TARGET REPAIR SHIPS.

Admiral COONTZ. There are two target repair ships, one with each fleet.

Mr. KELLEY. What are their names?

Admiral COONTZ. They are the *Antares* and *Procyon*. They relieved two old ships that were placed out of commission. They tried target material, photographic material, etc., and they stay with the fleets during target practice.

Mr. KELLEY. How many men do they carry?

Captain WILLIAMS. Ninety-one each.

Mr. KELLEY. One of them is with each fleet?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They operate the year around?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That makes five vessels in that group?

Admiral COONTZ. Yes, sir. I am not sure whether we took up the *Wright* or not.

Colonel ROOSEVELT. That is an airplane tender. Did we take up the *Hannibal*?

Secretary DENBY. The *Hannibal* has been doing surveying work in Honduras.

Mr. KELLEY. You may fix up a table covering those five ships.

Admiral COONTZ. The *Hannibal* is doing surveying duty.

Colonel ROOSEVELT. The *Wright* is an aircraft tender. There are two aircraft tenders, one with each fleet, namely, the *Aroostook* and the *Wright*. There is another one here, the repair ship *Prometheus*, and I do not know whether you took up that one, or not. I do not think you have covered the *Vestal* either.

Commander HILL. They were mentioned separately.

Mr. KELLEY. What list does the *Prometheus* come under?

Commander HILL. Under torpedo boat tenders, on page 118. The *Vestal* appears on page 135, under the heading, "Special type." Both are covered.

Colonel ROOSEVELT. May I suggest that we prepare a list showing the ships under their proper classifications, all the way down, so that they may not be mixed up and appear on the wrong list?

RECEIVING SHIPS AND BARRACKS.

Mr. KELLEY. For the present, we had better stick to what we have, but when we get through with these tables, just as we have asked for them, then a list like this you have shown me might be prepared as a summary.

Which of these receiving ships on page 154 are receiving barracks?

Admiral COONTZ. I will have to ask Captain Williams to answer that question.

Mr. KELLEY. Point out which of them are ships and which are barracks. I am referring to those designated as receiving ships.

Captain WILLIAMS. On this list on page 154?

Mr. KELLEY. Yes; it starts on page 153.

Captain WILLIAMS. I will start with the receiving ship at Hampton Roads, on page 153: That is barracks.

Mr. KELLEY. How about the receiving ship at Halifax and the receiving ship *Olongapo*?

Captain WILLIAMS. They are out. The receiving ship at Hampton Roads is barracks; *Norfolk* is out.

Mr. KELLEY. That used to be a ship?

Captain WILLIAMS. Yes, sir. The receiving ship *Charleston* is a ship; the receiving ship *Puget Sound* is a ship; the receiving ship *Cavite* is a ship; the receiving ship *Newport* is out; the receiving ship *Key West* is out; the receiving ship *New Orleans* is out; the receiving ship *Washington* is a district craft. That has been ordered out, and we are using craft at the docks, or the *Mayflower* or *Sydney* when they are here. The receiving ship *Pearl Harbor* is a ship; the receiving ship *Guantanamo* is a district craft that we use for a receiving ship; the receiving ship *Great Lakes* is out; the receiving ship *Coco Solo* is out; the receiving ship *San Francisco* is a ship; the receiving ship *Mare Island* is a barracks; the receiving ship *Portsmouth* is a ship; the receiving ship *Boston* is a barracks; the receiving ship *New York* is a ship; and the receiving ship *Philadelphia* is barracks. That covers about all of the receiving ships.

Mr. KELLEY. You will make a table covering the receiving stations, showing the number of enlisted men necessary to man the stations, whether they are barracks or ships. We want their complements and the number now present, and the number you are estimating for next year.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And indicate in the statement whether they are ships or barracks.

Captain WILLIAMS. Yes, sir.

Receiving ships, receiving barracks, and station ships.

Location.	Complement.	On board	
		Operating force.	Grand total
Portsmouth (Southery).....	47	45	
Boston.....	77	79	
New York (Pueblo).....	320	320	
Philadelphia.....	124	164	
Hampton Roads.....	88	85	
Charleston (Hartford).....	75	71	
San Francisco (Boston).....	160	138	
Mare Island.....	207	151	
Puget Sound (Philadelphia).....	106	106	
Cavite (Ajax).....	67	98	
Annapolis (Reina Mercedes).....	91	74	
Washington, D. C.....	62	86	
Pearl Harbor (Hancock).....	130	116	...
Total.....	1,557	1,630	

¹ 348 mess attendants charged against Naval Academy.

² And 158 under instruction.

Mr. KELLEY. In making these statements, the fact that the men are paid there in one way or another does not really show the cost of the station, and it is very misleading. Is there not some way in which the bookkeeping could be adjusted to show what the station cost, independent of the flow of the expense or the pay of men going back and forth?

Admiral COONTZ. I think that is along the line that the Secretary is working now in his effort to develop a cost-accounting system that will place things where they belong. For instance, on a receiving ship there may be 2,000 men going through and getting their pay. I notice a vast sum of money there in connection with the *Henderson*, for instance. That means that the account is carried against that ship for men who are paid while she is carrying them. She may be carrying them as passengers, and if the *Henderson* has the money, she pays them.

Mr. KELLEY. That is, if they are paid while traveling on her, it appears as a charge against the *Henderson*?

Admiral COONTZ. Yes, sir. We are very anxious to get that straightened out, because here is the situation we are confronted with in these tables: There appear on these tables craft that have been sunk for seven or eight years, but they are still put down in 1921. You can see that from the number of ships we have struck off to-day. We should have a special table covering the ships in service during the past year alone, and not have this accumulation of charges for years past.

Captain WILLIAMS. For the receiving ship there would be required about 1,034 men, and for the receiving barracks about 676. That would be the complement.

Mr. KELLEY. One thousand seven hundred and ten for the receiving ships and barracks?

Captain WILLIAMS. I would call it 1,750.

FLEET AVIATION.

Mr. KELLEY. Have we covered the ships in connection with fleet aviation?

Admiral COONTZ. No, sir.

Mr. KELLEY. What are the ships in fleet aviation?

Captain WILLIAMS. There are 1,100 men.

Mr. KELLEY. What ships are they on?

Captain WILLIAMS. They are organized into squadrons that can be shifted to any ships whatsoever. They are the flying forces. The aircraft tenders are the *Aroostook* and the *Wright*.

Mr. KELLEY. We have had them.

Captain WILLIAMS. This other is the flying detachment that belongs with the fleets. They are really attached to the flying boats.

Colonel ROOSEVELT. They are airdromes, and they are not attached to any ship. For instance, when they have an airship on board a battleship that may be launched by means of a catapult, they have a number of men attached for that service.

Mr. KELLEY. How many men do you want for that service?

Admiral COONTZ. One thousand one hundred.

Mr. KELLEY. They are scattered throughout the two fleets, and are on board the various battleships and airplane carriers.

Admiral COONTZ. Yes, sir; including the *Wright* and the *Aroostook*.

Commander HILL. That is explained by the fact that the *Wright*, the *Langley*, and various other ships that carry planes, carry non-aviation complements.

Mr. KELLEY. Let us get that straight: You want 1,100 men to be carried through the fleet, and this will include the number on the *Aroostook* and the *Wright*?

Commander HILL. And the *Langley*. It includes men who are aviation mechanics, repair men, and flyers.

Colonel ROOSEVELT. I do not understand it that way. I understand that the complement of 1,100 men is surplusage over the complements for the *Wright*, the *Aroostook*, and the *Langley*.

Commander HILL. That is right. The complements we have going out are straight navy complements.

Mr. KELLEY. You want men enough to operate the *Aroostook*, the *Wright*, and the *Langley* as ships, and then you want 1,100 men besides those?

Commander HILL. Yes, sir; to go not only on those three ships, but on the battleships which have planes that are launched by catapults.

DISTRIBUTION OF MEN FOR FLEET AVIATION.

Mr. KELLEY. How do you arrive at 1,100 men for that service?

Admiral COONTZ. I will have to ask the Bureau of Navigation to give the figures.

Mr. KELLEY. Suppose you prepare a table showing the distribution of those 1,100 men.

Captain WILLIAMS. I will do so.

Distribution of fleet air detachments, comprising total of 1,100.

	Complement -
Atlantic Fleet:	
Air squadrons.....	57
Scouting Squadron No. 2.....	105
Torpedo Plane Squadron No. 1.....	145
Kite Balloon Squadron No. 1.....	67
Scouting Squadron No. 1.....	36
Total.....	405
Pacific Fleet:	
Combat Squadron No. 4.....	91
Seaplane Patrol Squadron No. 1.....	106
Spotting Squadron No. 4.....	110
Spotting Squadron (L) No. 1.....	70
Combat Squadron No. 3.....	91
Spotting Squadron No. 3.....	115
Air squadrons.....	64
Combat Squadron (L) No. 1.....	50
Total.....	697
Grand total.....	1,100

Mr. OLIVER. Of course, you contemplate that you will have adequate facilities for this complement of men to use when they are assigned to the ships. In other words, you would not assign a flying squadron to a ship that was not provided with facilities for flying?

Secretary DENBY. No.

Mr. KELLEY. How many men do you now have scattered through the fleet for this purpose?

Captain WILLIAMS. Six hundred and thirty-two.

Commander HILL. The *Langley* is not yet in commission.

Mr. KELLEY. You have 632 out of the 1,100?

Captain WILLIAMS. Yes, sir.

Commander HILL. And the *Langley* is not yet in commission.

Mr. KELLEY. The *Langley* is a separate proposition.

Commander HILL. About 400 men of the 1,100 are for the *Langley*.

Colonel ROOSEVELT. What Mr. Hill means is this: When the *Langley* is commissioned, then these men will go on board her, because she will have the facilities to take care of them, but they will not be considered as a part of the *Langley's* crew, but they will discharge a special function. They will be airmen. In addition to that, a large number of battleships are being equipped with catapults now, but those vessels have not air people on board now, because we do not put air people on board a ship until the facilities are provided.

Mr. KELLEY. Of course, we will go into that question later in connection with the number of ships to be fitted up for that purpose. I want to have this clear in my mind, and I do not think you gentlemen have the same view of it.

Commander HILL. Yes, sir; we are in accord.

Mr. KELLEY. Your notion is that there are 632 men in the fleet now that are not charged to any particular aviation ships, and that when the *Langley* comes in, she will require 400?

Captain WILLIAMS. Three hundred and thirty-nine.

Mr. KELLEY. That makes practically the 1,100 you are asking for.

Captain WILLIAMS. No, sir. We have two aircraft tenders and one aircraft carrier, and one fleet aviation detachment. The fleet aviation detachment is now composed of 632 men, but the fleet aircraft carrier, which is the *Langley*, is not now in commission. The two aircraft tenders, the *Aroostook* and the *Wright*, have a complement of 536 men.

Mr. KELLEY. How many does that make altogether?

Captain WILLIAMS. That makes 1,476.

Mr. KELLEY. And that is the number you want next year?

Captain WILLIAMS. That is the number we have now; next year we want 1,975.

Mr. KELLEY. You want 1,975 next year for fleet aviation?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You will prepare the tables for us?

Captain WILLIAMS. Yes, sir.

DISTRICT CRAFT.

Mr. KELLEY. We now come to the district craft. What ships have we in the first naval district?

Secretary DENBY. I think we have been over that, Mr. Chairman.

Mr. KELLEY. There was \$4,000,000 worth of them in 1921.

Admiral COONTZ. I would like to ask Mr. Reed whether he has any figures on that.

Mr. KELLEY. Yesterday he did not have a list of any vessels at all.

Commander HILL. We have covered all of those under different headings.

Colonel ROOSEVELT. We have been over the whole thing.

Mr. KELLEY. Are more naval reserves involved?

Secretary DENBY. It is largely naval reserves.

Mr. KELLEY. Why do you have them in here, then?

Secretary DENBY. This book is not our guide; we have been following it with you. We have had our vessels all mixed up and we have been trying to untangle them.

Commander HILL. We have been over the majority of them; all of the harbor tugs and seagoing tugs we went over, under the head of tugs, etc., most of them.

Mr. KELLEY. We have been over this long list of tugs and now we come to naval districts and their craft, the operation and maintenance of which cost in 1921 \$4,307,136, and there are no details of the ships at all.

Mr. BYRNES. Does that represent shore supplies or ships?

Admiral COONTZ. I will be perfectly frank. I have no idea what it is, and I would like an opportunity to study it; it might be ships or it might be shore supplies.

Captain WILLIAMS. I can give the number of men afloat in the districts.

Admiral COONTZ. The ships used by the districts, with the possible exception of a very small number of vessels, have all been enumerated.

Mr. KELLEY. Where does this \$4,000,000 come from?

Admiral COONTZ. That is what I want to find out, and I will be very glad to find out. My impression is that it has nothing to do with ships of that character.

Mr. KELLEY. What is your understanding about it, Mr. Reed?

Mr. REED. My understanding is that it is reported in by ships and that it is in addition to the other charges carried in the other tables. I did not go back to the detailed record cards when I got back to the office.

Secretary DENBY. It is meaningless here if it refers to ships.

Admiral COONTZ. The ships have all been covered except 10 or 15 small craft. This may be pay of reservists, of which we had a large number.

Mr. KELLEY. You will see that only a small part is for pay.

Mr. FRENCH. Yes; only a small part is for pay; a part of it is for equipage and a part for stores.

Mr. KELLEY. And for repairs and alterations.

Secretary DENBY. There are 5 districts in a row here in which there were no repairs; the first one had no repairs, and there are only 6 out of 15 districts that have had repairs or alterations.

Colonel ROOSEVELT. The sum total for repairs is only \$8,688.

Secretary DENBY. Which would not indicate ships.

Mr. KELLEY. Are you asking for any more ships?

Admiral COONTZ. Not to exceed 15, which would be on Captain Williams's list as possible ferryboats; we run a ferryboat from Mare Island to Vallejo, and we run one from Portsmouth, N. H., to the Kittery, and something like that. But we have covered, as far as I know, everything else.

Mr. KELLEY. Now, then, Admiral; I will ask you and the Bureau of Supplies and Accounts to look that up over night so that we will have a clear understanding of it. Now, all through the discussion of ships you have stated at different times that such and such ships were going out of commission.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. In those cases that means absolutely out of commission?

Admiral COONTZ. Yes, sir.

KELLEY. And not in reserve with any men on board?

Admiral COONTZ. No, sir.

Secretary DENBY. But solely in the discretion of the department.

Admiral COONTZ. There might be a few exceptions, but nothing would amount to anything.

KELLEY. You have indicated to-day your needs as far as we can see them?

Admiral COONTZ. Afloat, yes, sir; I think we have covered every-

KELLEY. We are very much obliged to you.

STATEMENT SHOWING COMPARATIVE STRENGTH OF FIVE GREAT POWERS.

BYRNES. Admiral, when you summarize the total of your afloat, can you, without much trouble, prepare a statement of the best knowledge of the Navy as to the number of similar afloat in the Navy of Great Britain as in the Navy of Japan?

Admiral COONTZ. Yes, sir.

BYRNES. So we may have it for our information.

Admiral COONTZ. I think we can cover that fairly well.

Comparative fighting strengths of the five great naval powers.

Type.	Great Britain.		United States.		Japan.		France.		Italy.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
SHIPS BUILT.										
ships, first line.....	26	635,650	18	500,650	7	212,120	7	161,911	6	143,000
ships, second line.....	7	127,150	13	202,740	4	71,500	4	74,062	4	50,400
cruisers, first line.....	6	175,400			4	110,000				
cruisers, second line.....	4	72,100								
first line.....	2	37,200								
second line.....	4	46,100	10	131,300	5	39,200	10	119,108	5	46,500
destroyers, first line.....	47	208,915			11	54,850	4	17,802	5	21,000
destroyers, second line.....	14	74,465	9	30,450	1	4,100	1	3,444	5	17,300
torpedo leaders.....	20	34,376					1	2,485	6	10,300
ships, first line.....	179	208,742	294	349,555	43	44,613	10	89,073	27	22,679
ships, second line.....	6	4,200	21	15,582	12	7,850	34	23,947	16	11,840
submarines, first line.....	45	36,563	58	35,843	14	10,888	16	12,333	10	8,040
submarines, second line.....	37	15,671	42	15,905	10	3,259	24	9,447	33	9,610
torpedo boats, first line.....	6	11,280	3	3,318						
torpedo boats, second line.....	6	7,200								
submarines.....	3	4,800								
carriers, first line.....	4	62,590					1	24,830		
carriers, second line.....	3	26,130			1	5,875				
TOTALS.....	419	1,787,932	468	1,285,343	112	584,255	112	538,442	117	340,669
Operating programs.										
ships, first line.....			9	357,000	6	253,800				
destroyers, first line.....	4	160,000	6	261,000	8	352,000				
destroyers, first line.....	2	19,500	10	75,000	16	85,700	3	24,000	2	16,000
torpedo leaders.....	1	1,750					6	14,400	6	12,270
ships, first line.....	6	7,450	15	19,620	58	66,865	12	16,800	12	11,680
submarines, first line.....	6	7,580	35	31,000	{ 32	29,022	12	13,200	4	2,600
torpedo boats, first line.....			9	14,850	{ 52	(2)				
carriers, second line.....			1	19,360	3	27,000				
TOTALS.....	19	196,320	85	777,830	{ 123	814,387	33	68,400	24	42,550
					{ 52	(2)				

retains 33 other destroyers, of 381 tons each, in active commission; total active, 88.
Age unknown.

Mr. KELLEY. If you will let me have your summary—I think that is the proper name for it—of practically all we have gone through for my own use, overnight, I will be much obliged to you. That will cover the ships as you have given them in general. Then it will appear in the record, of course, exactly as we have modified it by changing the ships from one group to another. We want the record to appear as we have developed it here to-day, but I would like the summary which you have used in making up your own figures.

Secretary DENBY. I have here, Mr. Chairman, which I merely ask to be filed, a statement showing the economies that have been undertaken by the department during the last year, the orders that have been issued, and the attempts made to bring about economies. I want to show you what we have done in trying to bring about economies.

Mr. KELLEY. As that is rather a large document, could it not be summarized for us, and then it might be possible to publish it in the record?

Secretary DENBY. That might be possible; yes. Then I have another statement which I would like to file, which can not be summarized, showing the mission of the varying classes of vessels, the number, and their complement.

Mr. KELLEY. We could make an abstract of it ourselves, but suppose it would be better for you to do it yourself.

Admiral, I have read somewhere, I think in the hearings before the House Committee on Naval Affairs, a statement showing the relative number of men on shore as compared to the men afloat. Do you recall what that statement was?

Admiral COONTZ. Yes, sir; I think the Bureau of Navigation estimates that as two to one.

Mr. KELLEY. And then after we get the number afloat we simply take one-third, and one-third of that number would fairly represent the shore activities.

Colonel ROOSEVELT. One-half.

Admiral COONTZ. But, Mr. Kelley, in the shore activities are the tugs, harbor tugs, *Eagles*, subchasers, miscellaneous, etc., and what I have listed here is straight seagoing material, and the men the navigation counts to make that other come in these minor matters in the replacements and everything of that sort. So we should not add these to the seagoing and then add half to it, because that would be taking a part of that other, and when we get through with seagoing we simply get down to these various other things, down to the Fish Commission, the special-duty craft, the submarines and destroyers in reserve.

DISTRIBUTION OF SHORE PERSONNEL.

Mr. KELLEY. Have you a distribution of the shore personnel?

Captain WILLIAMS. Not complete, but I can give you an approximate distribution of the total number of men actually in service 100,999; at that time there were 4,981 in training; the operating shore establishments had 15,985 and the replacements were 7,8 plus 4,062 men in transit.

Mr. KELLEY. That is our old friend again, replacements.

Captain WILLIAMS. That is a difficult puzzle but it still exists; it has not died.

Mr. KELLEY. What is the total for the shore activities?

Captain WILLIAMS. The total is 32,861, roughly.

Mr. KELLEY. About one-third?

Captain WILLIAMS. Just about, sir.

Admiral COONTZ. Have you radio and aviation in there?

Captain WILLIAMS. Aviation in this particular distribution was 2,100.

Mr. KELLEY. Let us have the sheet showing that, just for our use.

Captain WILLIAMS. You may have this, sir.

Distribution as of January 1, 1922.

Total afloat.....	68, 138
Total ashore:	
Operating force.....	11, 392
General detail, under training, patients in hospitals, prisoners, and students in trade schools.....	11, 172
Receiving ships—	
Operating.....	1, 241
General detail.....	1, 642
District vessels.....	3, 352
	28, 799
In transit.....	4, 062
	<hr/> 32, 861
Grand total.....	<hr/> 100, 999

DEPARTMENT'S ATTITUDE TOWARD KEEPING NAVAL RATIO AS ESTABLISHED BY CONFERENCE.

Mr. KELLEY. Mr. Secretary, I will be glad to have you make any general statement you desire to make.

Secretary DENBY. Mr. Chairman, I have no desire to say very much this afternoon. I would like to point out simply that we have during the past year made the most strenuous possible effort at economy, consistent with the maintenance of the fleet we inherited, the American fleet; we got it, we must keep it up; and personally I am very earnestly of the opinion that we must still keep it up, no matter what the fate of the treaty is. The treaty dealt only with some few nations. I do not intend to plead for an excessive Navy, but I am going to plead that the Navy determined by the treaty shall be maintained by the United States. I do not think there is any reason and any justification for increasing it, but I do hope that a fair Navy for the United States shall be maintained as the United States Navy, or call it a treaty Navy, if you like, or whatever other name you choose to call it. We will fall below our ratio of 5-5-3 so terribly if we do not maintain our personnel and ships and if we do not do that we will ourselves have defeated the treaty purpose. So I ask that in the bill you are discussing these and other elements be taken into account.

For the department I wish to say that we are the tools of Congress and will, of course, cheerfully administer whatever Navy we may get. I am not arguing for anything more than that which has apparently been indicated through the Executive branch; I do not know what conversations you gentlemen may have had with the President himself

and I am only taking the things that all the world knows. According to the treaty the Navy for the United States was based on 18 battleships; we know what England has and we know what Japan has, but we do not know yet what we are going to have. However, we ought to have a Navy based upon 18 battleships, with the accompanying auxiliaries, cruisers, and other necessary vessels, and the necessary personnel. You can not make a destroyer man in a minute; you can not make a submarine man in a month, and you can not even make a battleship man worth anything inside of a certain number of months of training.

Mr. KELLEY. The only agreement you reached in the conference was relative to battleships.

Secretary DENBY. Yes, sir.

Mr. KELLEY. Before the war we had in commission more battleships than we are allowed to have under the treaty.

Secretary DENBY. Yes, sir.

Mr. KELLEY. And we only had about 50,000 men.

Secretary DENBY. I have forgotten the number of men, but we had a very much reduced Navy, of course, before the war.

Mr. KELLEY. My recollection is that we had 20 battleships in full commission and several in semicommission.

Secretary DENBY. But they were a different type of craft than we build now, and they did not have all of the complicated arrangements made necessary by recent events.

Mr. KELLEY. We had 13 of the same class.

Secretary DENBY. Yes; but, Mr. Chairman, we did not have then our destroyers.

Mr. KELLEY. But our agreement only relates to battleships.

Secretary DENBY. Yes; battleships and airplane carriers; those were the two specific things, but does not everybody realize that a 5-5-3 Navy means that the Navy is based upon battleships plus the auxiliaries which modern science has developed, and if we should lop off our auxiliaries and have only our battleships we would drop far lower than even the figures would indicate.

Mr. KELLEY. When we made this new program, this 1916 program, we had 50 destroyers, and the naval officers said that if we had 50 more to go with the new program, making 100 in all, that would be ample, while now we have 300, in round numbers, with the new program discontinued.

Secretary DENBY. Yes.

Mr. KELLEY. So, of course, we have a vast excess of destroyers over and above what anybody contemplated would be necessary for the ships we had at that time plus the five we have taken in since.

Secretary DENBY. Of course, we all know why we have so many destroyers: they were practically a war measure.

Mr. KELLEY. But simply because we have them is no reason why we should go beyond that which the naval men suggested.

You want 123 for the battleship fleet when you did not expect to have but 100 for all of this battleship fleet, plus those you are going to scrap, and in spite of the further fact that aviation has developed very largely to take the place of destroyers?

Admiral COONTZ. We learned a great many things during the war. We learned the value of the different types of craft, and we know the

ry serious nature of both. We know the need of speedy cruisers meet the destroyers.

Mr. KELLEY. If we follow the 5-3 plan as to battleships, that is, according to your idea?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Plus the building of the light cruisers?

Admiral COONTZ. I think you are not far off now.

Mr. KELLEY. Will that meet your approval?

Admiral COONTZ. I agree as to keeping up the 5-5-3 ratio.

Colonel ROOSEVELT. We did not say 5-3; we said 5-5-3. You are only talking 5-3.

Admiral COONTZ. If you look at the list of light cruisers of Great Britain you will see 283,380 tons of light cruisers, and Japan has a lot more than ourselves.

Mr. KELLEY. If you keep on with the development of aviation, what is the significance of the light cruisers?

Admiral COONTZ. Aviation has not gotten very far.

Mr. KELLEY. If you are going to spend some money for development, why not spend it on aviation and keep the destroyers in commission?

Admiral COONTZ. We have cut down. The light cruisers will come along in the next couple of years.

Mr. KELLEY. My recollection is that you always thought of these light cruisers as scouts to go out and find where the enemy is. Now, with aviation, why have these ships with 1,100 men for the purpose of finding out where the enemy is, a small cruiser that has not any power?

Admiral COONTZ. They will be the very finest and will help us along very much.

Mr. KELLEY. What is the gun power?

Admiral COONTZ. Six-inch guns with speed of 30 or 32 knots.

Mr. KELLEY. What would a 6-inch gun do?

Admiral COONTZ. A great deal to a destroyer or any other light cruiser.

Secretary DENBY. I would like to emphasize the idea, as a general proposition, that it is well to keep the Navy up even after making a treaty and before its ratification. I think it would be disastrous for the United States to drastically cut the Navy.

Mr. KELLEY. Admiral, there is just one other question. When we get the list, as you have indicated, the number of ships in each group, are there some activities that if you were deprived of the full number of men that you would prefer to curtail rather than others?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If we decide later on that this number of men Congress, perhaps, might not be willing to grant, you will cooperate with us to the end of eliminating from the list what you have indicated as desirable?

Admiral COONTZ. I certainly would, Mr. Kelley. I think that the fighting force afloat is what deserves first consideration. I would not hesitate to shut up a shore station to save money and to save the men afloat. I would not hesitate, wherever it could be done. You remember when the last war broke the order of President Wilson pulled the lieutenants and trained men out of the battleships and the armed merchant ships. That is what they did. We had to

have trained men and if anything happens I would resort to any alternative to get away from that and save these men, because I feel it is vital to have trained men. We propose as the hearings along, to indicate where we will try to make further savings in order to save the personnel. We have the ships. You talk about destroyers, the question of destroyers had more to do in this conference than almost anything else.

Mr. KELLEY. We will have them, if you do not run them?

Admiral COONTZ. Yes; but you want to run them and you want somebody who can act quickly.

FRIDAY, MARCH 10, 1923.

ESTIMATE OF COMPLEMENTS FOR 1923.

BATTLESHIPS.

Mr. KELLEY. We have with us this morning the Secretary of Navy, Admiral Coontz, Captain Williams, of the Bureau of Navigation, and other assistants.

Admiral, we would like to check over this morning the number of men afloat.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is your latest estimate of the number of men required on the 18 battleships to be in commission next year?

Captain WILLIAMS. The total?

Mr. KELLEY. Yes, sir.

Captain WILLIAMS. The total is 21,721.

Mr. KELLEY. Now, please give me the total number of men on those ships, that is, February 1.

Commander LEAHY. 18,273.

Secretary DENBY. That is the present strength.

Mr. KELLEY. The number on board as of February 1.

CRUISERS.

Now, Captain, you are asking for 10 cruisers besides the ones?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Please name those 10 cruisers.

Captain WILLIAMS. *Huron*, *Pueblo*, *Seattle*, *Charleston*, *Rochester*, *Birmingham*, *Cleveland*, *Denver*, *Galveston*, and *Tacoma*.

Mr. KELLEY. Please give the number of men you are asking for each one of those ships right down the line in the same order.

Captain WILLIAMS. *Huron*, 791; *Pueblo*, 791; *Seattle*, 649; *Rochester*, 544; *Birmingham*, 300; *Cleveland*, 288; *Denver*, 288; *Galveston*, 288; and *Tacoma*, 288.

Mr. KELLEY. The total?

Captain WILLIAMS. Five thousand and eighteen.

Mr. KELLEY. Please give in the same order the number of men on those ships as of February 1.

tain WILLIAMS. *Huron*, 684; *Pueblo*, 320; *Seattle*, 0; *Charleston*, *Rochester*, 366; *Birmingham*, 276; *Cleveland*, 276; *Denver*, 303; *Ston*, 302; and *Tacoma*, 277.

KELLEY. And the total?

tain WILLIAMS. Two thousand nine hundred and ninety-seven.

KELLEY. How many men do you require for the *Seattle*?

tain WILLIAMS. Seven hundred and ninety-one.

KELLEY. And how many for the *Charleston*?

tain WILLIAMS. Six hundred and forty-nine.

KELLEY. That makes how many for those two ships?

tain WILLIAMS. One thousand four hundred and forty.

KELLEY. If you add those to the 2,997, it makes 4,437 for all cruisers?

miral COONTZ. I think you should remember one fact, that the *Utah*, which is now the receiving ship at New York, having 320, is to go to relieve the *Utah*. She is now the receiving ship, and will relieve the *Utah*, which comes home.

KELLEY. That would reduce the number?

miral COONTZ. It would add 300 to the number.

KELLEY. We allowed 2,100 men for the *Utah*?

miral COONTZ. No; not 2,100.

KELLEY. One thousand one hundred?

miral COONTZ. Yes, sir. She is to come back and take her place in the battle line. She is a battleship.

BYRNES. What becomes of the men on the *Utah*?

miral COONTZ. The *Utah* is one of the 18 battleships that we have under the treaty. We thought we were going to throw her out, but we kept her under the treaty when we had an exchange of ships with the other countries. She has already been counted.

KELLEY. That takes care of the cruisers?

miral COONTZ. Yes, sir.

KELLEY. You will eliminate the monitor *Cheyenne*?

miral COONTZ. That will be replaced, and we will save that money for something else.

DESTROYERS.

KELLEY. How many men are you asking for the 126 destroyers?

tain WILLIAMS. Eleven thousand eight hundred and seventeen.

KELLEY. As stated the other day, that is 102 for 103 destroyers.

miral COONTZ. Yes, sir.

tain WILLIAMS. That will be composed of 103 destroyers, with 10 per cent complements.

KELLEY. Give the number of men.

tain WILLIAMS. One hundred and two men, or a total of 10,506; destroyers with 50 per cent complements, 57 men, a total of 1,311.

KELLEY. Making a total of 11,817.

tain WILLIAMS. Yes, sir.

KELLEY. That is 5 divisions of 19 each and 8 for the Mediterranean.

miral COONTZ. Yes, sir.

KELLEY. You will place 23 in partial commission?

miral COONTZ. Yes, sir.

Mr. KELLEY. How many destroyers have you now in full commission?

Captain WILLIAMS. Sixty-five.

Mr. KELLEY. How many men are on board those 65 destroyers?

Captain WILLIAMS. Five thousand six hundred and four.

Mr. KELLEY. Or an average of how many per ship?

Captain WILLIAMS. Eighty-six.

Mr. KELLEY. How many have you now on the destroyers in partial commission?

Captain WILLIAMS. Two hundred and thirteen destroyers.

Mr. KELLEY. With how many men in all?

Captain WILLIAMS. Eleven thousand nine hundred and thirty-eight.

Mr. KELLEY. That is an average of how many per ship?

Captain WILLIAMS. An average of 56.

MINE LAYERS.

Mr. KELLEY. Now, we come to the 10 light mine layers. Give the names of the ships.

Commander HILL. I have not the names.

Mr. KELLEY. I have a list of the names: They are the *Luce*, the *Mauray*, the *Lansdale*, the *Mahan*, the *Ingraham*, the *Ludlow*, the *Burns*, the *Anthony*, the *Hart*, and the *Rizal*.

How many men are you asking for these 10 light mine layers?

Captain WILLIAMS. Nine hundred and ninety.

Mr. KELLEY. How many have you on board the 10 mine layers now?

Commander HILL. There are 14 in commission, with a total 1,358, which is an average of 97 men per vessel.

Mr. KELLEY. Almost the same figure?

Commander HILL. Yes, sir.

SUBMARINES.

Mr. KELLEY. The number of submarines in active commission what?

Captain WILLIAMS. Eighty-four.

Mr. KELLEY. I mean now. Those new ones have not come that you are figuring on to make up the 84.

Captain WILLIAMS. Sixty-one.

Admiral COONTZ. There were 61 in full commission, but this taken down at the bottom will have to be gone through to find out whether they are full, or otherwise.

Mr. KELLEY. How many men are you asking for the 84 that you intend to keep in commission?

Captain WILLIAMS. I am asking for the 84 that we intend to keep in commission 2,579 men.

Mr. KELLEY. That is an average of about 30 men per ship.

Captain WILLIAMS. Yes, sir; just about 30.

Mr. KELLEY. How many men do you have on board the 61?

Captain WILLIAMS. We have on board 1,714.

Mr. KELLEY. That is almost the same number per ship, or about

Captain WILLIAMS. Yes, sir; it is about the same number.

Mr. KELLEY. Now, as to the submarines to be kept in partial commission, how many men are you asking?

Captain WILLIAMS. Four hundred and thirty.

Mr. KELLEY. For how many ships?

Captain WILLIAMS. Twenty-seven submarines with 430 men.

Mr. KELLEY. How many men would that be on each ship?

Captain WILLIAMS. About 17.

Mr. KELLEY. A little more than half of the complement of those in full commission?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How many have you laid up now?

Captain WILLIAMS. There are 37 in partial commission.

Mr. KELLEY. How many are on board those 37?

Captain WILLIAMS. Six hundred and ninety-two.

Mr. BYRNES. That makes a total of how many?

Mr. KELLEY. The number of men they are asking for submarines would be 2,579 plus 430, or 3,009.

Now we will take up the three new light cruisers.

Captain WILLIAMS. For the three new light cruisers we are asking 1,257 men.

Mr. KELLEY. What was the designed complement?

Captain WILLIAMS. The complement was 419 men.

Mr. KELLEY. I mean the original complement, as designed.

Admiral COONTZ. Three hundred and thirty-nine on June 28, but while that book was in press it was changed, on account of the guns, antiaircraft guns, etc., to 419.

DESTROYER TENDERS.

(See p. 306.)

Mr. KELLEY. How many men do you require for the six destroyer tenders?

Captain WILLIAMS. Two thousand seven hundred and fifty-nine men.

Mr. KELLEY. What are their names?

Captain WILLIAMS. The *Altair*, the *Denebola*, the *Rigel*, the *Black Hawk*, the *Melville*, and the *Bridgeport*.

Mr. KELLEY. Give the complement of each one of these ships.

Captain WILLIAMS. For the *Altair*, 450; for the *Denebola*, 450; for the *Rigel*, 450; for the *Black Hawk*, 440; for the *Bridgeport*, 520, and for the *Melville*, 449.

Mr. KELLEY. Making a total of 2,759?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Now let us have the number of men on those ships on the 1st of February, by ships.

Captain WILLIAMS. On the *Altair*, 74; on the *Denebola*, 242; on the *Rigel*, 41, on the *Black Hawk*, 349; on the *Bridgeport*, 651; and on the *Melville*, 332.

Mr. KELLEY. Read the complements of those two vessels that are heavily undermanned there.

Captain WILLIAMS. The *Altair*, 450; and the *Rigel*, 450.

Mr. KELLEY. Now, substitute those two figures for the similar figures shown for those ships on the 1st of February, and add up the column.

Admiral COONTZ. We have them mixed up a little. You want the complements they gave you, and you want them to make certain additions to them?

Mr. KELLEY. There are two ships which evidently are manned with only a few men, one of them being the *Altair* and the other the *Rigel*.

Captain WILLIAMS. A third one is the *Denebola*.

Mr. KELLEY. I am referring to the small numbers there.

Captain WILLIAMS. The number is 2,474.

Mr. KELLEY. What did you say the complement of the *Rigel* was?

Captain WILLIAMS. Four hundred and fifty.

Mr. KELLEY. In this list you gave the Naval Affairs Committee it is stated as 378.

Admiral COONTZ. At that time she had not been made a tender. We are not getting rid of the *Buffalo* and the *Dixie*.

Mr. KELLEY. You have increased the complement of the *Rigel* by 52 men?

Admiral COONTZ. Yes, sir; and the *Altair* by 181, and the *Denebola* by 200.

NUMBER OF REPAIR MEN CARRIED ON DESTROYER TENDERS.

Secretary DENBY. I would like to have put into the record, if Captain Williams has it, what the actual complement of each ship is and how many repair men are attached to each of those ships. Those ships are floating repair shops, and I want to know what number of men are needed for repairing the destroyers.

Captain WILLIAMS. I will put that in the record.

Complement of personnel for destroyer tenders.

	Ship.	Repair.	Total.		Ship.	Repair.	Total.
<i>Altair</i>	316	131	450	<i>Melville</i>	262	187	449
<i>Denebola</i>	316	134	450	<i>Black Hawk</i>	316	124	440
<i>Rigel</i>	316	134	450				
<i>Bridgeport</i>	300	220	520	Grand total..	1,826	933	2,759

Secretary DENBY. In other words, in addition to the men required to operate the ships, there are men needed to conduct the repair work on the destroyers. They carry a lot of mechanics.

ADVANTAGE OF FLOATING REPAIR SHOPS.

Mr. FRENCH. Is that item also included in these figures we have touching the complements of the different ships?

Secretary DENBY. No; because the men who operate the ships do not run the repair shops. These tenders are floating repair shops. Besides serving the destroyers in other ways, they make the repairs on them.

Mr. FRENCH. Would not these figures be met with in connection with shore duty at some other point?

Secretary DENBY. No; they would not. It simply means that as long as you have floating repair shops you can save an enormous

amount of money. By having these floating repair shops to take care of the repairs on these vessels, a lot of money is saved, because it obviates the necessity of sending the ships to navy yards to have minor repair work done, because these tenders carry skilled mechanics along with them. All I want to know is how many mechanics are carried in addition to the crews.

Mr. OLIVER. To what extent have you been following that practice in the last year?

Secretary DENBY. As completely as possible.

Mr. OLIVER. To what extent are you prevented from making repairs, such as you are prepared to make with tenders of this kind, by the rule requiring that where repairs amount to so much you must bring the vessels to navy yards and have them made, not by the crew, but by the employees of those yards?

Secretary DENBY. I should not think very much. I think the limit is \$5,000, or something of that sort.

Admiral COONTZ. I do not think there is any limit so far as these tenders are concerned.

Secretary DENBY. I do not believe that applies in this connection.

Admiral COONTZ. That provision would not come into play here at all.

Mr. OLIVER. Do you follow the same practice that you so successfully followed abroad during the war?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Just a word about the method of handling these repairs. Suppose you have these floating shops along with your destroyers, and something happens to a destroyer which requires some repairs, have you not the entire crew on your destroyer to make those repairs, without carrying a special crew for repairs on these ships?

Secretary DENBY. They might not have the material with which to make the repairs.

Mr. KELLEY. I am talking now about men.

Admiral COONTZ. They have men on board, but they have not a regular machine shop.

Mr. KELLEY. I am not talking about material now, but why do you want to carry two or three hundred men on a floating shop to repair a destroyer, when you have 113 men on the destroyer?

Secretary DENBY. Many of these men are skilled mechanics, who can come over and do the work.

Admiral COONTZ. They have, of course, their own ordinary duties to perform, and many of these repairs are beyond their power to make. We have found, not only at home, but abroad, that we can save the Government hundreds of thousands of dollars in this way.

Mr. KELLEY. Let us stick to the question I asked. Why could you not use the crew of the destroyer to make the repairs?

Admiral COONTZ. You can use them up to a certain point.

Mr. KELLEY. It seems to me that you ought not to add 200 men to the complement of the ship, or to the total number required to run the ship, to make the repairs. That must be a pretty big machine shop.

Admiral COONTZ. The way we did that abroad was the wonder of the foreign nations. I do not doubt but that Mr. Oliver went aboard

one of those vessels. That method resulted in a wonderful saving to the Government.

Mr. KELLEY. I am not finding fault with it, but I am trying to hold you down to this proposition: Why can not the men on the destroyers make the repairs?

Commander HILL. On a destroyer of this size there is located a machine shop consisting of a lathe, and that is all they can carry.

Mr. KELLEY. But you have skilled mechanics on the destroyers who could make those repairs, have you not?

Commander HILL. The destroyer's complement carries a certain number of machinists who are good machinists and who do spend on board practically all their time in making repairs that are within limits or within the power of the machinists on board the ships. In other words, there are lots of minor repairs, such as repairing pumps, little auxiliaries, etc., that can be done and are done every day on the destroyer itself. That work is sufficient to keep their whole force busy.

Mr. KELLEY. Why can you not use the men that are on the destroyer to do the repair work on the destroyer while at sea?

Commander HILL. When it comes to retubing a boiler, for instance, the case is different. They have boiler makers and fitters at the navy yard to make those repairs, but in this case the destroyer ties up alongside this repair ship, and they have boiler makers and fitters to do the work. They go on board the destroyer and retube the boiler.

Mr. KELLEY. You are asking for 200 men on the ship in addition to the ship's complement.

Commander HILL. Every one of those people follow a special trade, such as pattern maker, molding man, casting man, etc. They make their own castings, or they make the castings for parts of these ships up to a certain tonnage. They have planned it so as to practically keep every single destroyer we have in the Navy out of the navy yards, where there is a big overhead cost for repairs, and they will do every bit of it with the destroyer tenders, except where it is a case of docking the vessel. It will save the Government hundreds of thousands of dollars to use these mechanics on the tenders where there is no overhead, and where the mechanics do not get extra pay for overtime. Here you are not carrying a big overhead cost for a big establishment in the making of repairs.

Mr. KELLEY. The following are the complements put down with the destroyer tenders as reported to the Committee on Naval Affairs on February 1, 1922: On the *Altair*, 269; on the *Black Hawk*, 440; on the *Bridgeport*, 520; on the *Buffalo*, 400; on the *Denebola*, 250; on the *Dixie*, 474; on the *Dobbin*, 341; on the *Melville*, 449; and on the *Rigel*, 398. We have put all of the facts in the record about the number, but there may be some discussion about the numbers.

DESTROYER TENDERS.

(See p. 303.)

Admiral COONTZ. I think it should be stated that the *Buffalo* and *Dixie* are at the present time in commission, and are to be relieved by two of these vessels that have since been assigned to proper complements.

Mr. KELLEY. So there will be only six in all?

Admiral COONTZ. Yes, sir.

Secretary DENBY. There is one other thing that I think should go to the record in that connection: The figures reported on February to the Committee on Naval Affairs were the complements of the first two ships, not including the repair men, because they had not taken their repair men on board at that time. They were taken over from the Shipping Board, and had not been manned with their own pair forces.

Mr. KELLEY. The number of men actually on board in the case of the *Altair* and the *Rigel* obviously is very insufficient; the number in the case being only 74 and in the other only 41. In this case we will put it down in our figures the full complements.

Secretary DENBY. The *Altair's* complement is given as 269. That is the complement of the ship, and the additional men are the mariners and mechanics.

Mr. KELLEY. What do you make that figure showing the actual number on board, with those two corrections?

Captain WILLIAMS. Two thousand four hundred and seventy-four.

Mr. FRENCH. Do these figures include repairmen on any or all of these ships?

Admiral COONTZ. The figures which Mr. Kelley has brought out are entirely to our satisfaction. In the case of the *Denebola*, she has been changed from 250 to 450 men, which makes a difference of 200, which would make that 2,474, which is what should stand.

Mr. KELLEY. The only dispute about any of the ships is as to those that go in.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. But have not yet been in commission as destroyer tenders.

Admiral COONTZ. Yes, sir.

SUBMARINE TENDERS.

Mr. KELLEY. Now the submarine tenders. Give them by name first.

Captain WILLIAMS. The *Beaver*, the *Bushnell*, the *Camden*, the *Fulton*, the *Rainbow*, the *Savannah*, and the *Canopus*.

Mr. KELLEY. Give us the number of men you are asking for each ship.

Captain WILLIAMS. We are asking: For the *Beaver*, 292; for the *Bushnell*, 195; for the *Camden*, 344; for the *Fulton*, 134; for the *Rainbow*, 297; for the *Savannah*, 338; for the *Canopus*, 282; a total of 1,882.

These ships had on board on February 1 as follows: *Beaver*, 300; *Bushnell*, 179; *Camden*, 378; *Fulton*, 131; *Rainbow*, 322; *Savannah*, 308; *Canopus*, 486; a total of 2,104.

Mr. KELLEY. The numbers do not seem to agree with the printed statement.

Admiral COONTZ. You have one short, the *Canopus*, which was explained the other day.

Mr. KELLEY. But even then the numbers do not quite agree, but I understood you to say you are asking for 1,882.

Captain WILLIAMS. Yes, sir.

HOSPITAL SHIPS.

Mr. KELLEY. Now the hospital ships.

Captain WILLIAMS. They are the *Mercy* and the *Relief*, and we asking a total of 709 men.

Mr. KELLEY. How many have you on board now?

Captain WILLIAMS. We are asking for the *Mercy* 348 men for the *Relief* 361; we have on the *Mercy* at the present time men and on the *Relief* 411 men, a total of 679 men.

GUNBOATS.

Mr. KELLEY. Read the list of gunboats you are asking to commission next year.

Captain WILLIAMS. The *Elcano*, *Monocacy*, *Palos*, *Pamp Quiros*, *Sacramento*, *Villalobos*, *Wilmington*. We are asking a total of 639 men.

Mr. FRENCH. Does the *Asheville* come out?

Admiral COONTZ. She comes on another list and we will consider her later.

Mr. KELLEY. That does not make 14.

Captain WILLIAMS. They said 14 but some of those come there are 6 now training reserves; they would come out, as should be 8 instead of 14.

Mr. KELLEY. Then the number of gunboats is eight?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. With a total of how many?

Captain WILLIAMS. Six hundred and thirty-nine men.

Mr. KELLEY. And how many are upon those boats now?

Captain WILLIAMS. Six hundred and fifty on board of them.

Mr. KELLEY. That is for eight gunboats?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I think you had better give the number on one and then we will have the record complete.

Captain WILLIAMS. We have on board the *Elcano*, 87; *Monocacy*, 48; *Palos*, 55; *Pampanga*, 30; *Quiros*, 47; *Sacramento*, 176; *Villalobos*, 56; *Wilmington*, 151.

Mr. KELLEY. That totals 650, does it?

Captain WILLIAMS. Yes, sir.

SPECIAL DUTY CRAFT.

Mr. KELLEY. Now the special duty craft. You have them in patrol vessels in one place and in another place you call them special duty craft, including the *Mayflower* list.

Captain WILLIAMS. For the special duty craft we are asking men, as follows: *Mayflower*, 160; *Sylph*, 32; *Osceola*, 34; *Notch*, 66; *Potomac*, 42; *Tadousac*, 39; *Vixen*, 72; *Scorpion*, 132.

Mr. KELLEY. You have an entirely new list.

Admiral COONTZ. It is on page 203, at the bottom.

Captain WILLIAMS. *Pensacola*, 110; *Napa*, 39; *Ontario*, 54; *Calhoun*, 39; a total of \$19 men.

Mr. KELLEY. Let us see whether we can straighten these out the *Mayflower* on that list?

al COONTZ. Yes, sir.

ELLEY. One hundred and fifty-nine men?

al COONTZ. On board.

ELLEY. You are asking for 160?

in WILLIAMS. The *Mayflower* heads the list and we are
of 160.

ELLEY. Is the *Vixen* there?

in WILLIAMS. The *Vixen* is here; yes, sir.

ELLEY. With how many men?

in WILLIAMS. The *Vixen*, 72 men.

ELLEY. The *Sylph*?

in WILLIAMS. Thirty-two men.

ELLEY. The *Nokomis*, 66 men; the *Isabel*—

ary DENBY (interposing). She is not on that list.

in WILLIAMS. She is not included in this special-duty craft.

ELLEY. We could get along much better if we had these lists

ary DENBY. How many are on board the *Isabel*?

ander LEAHY. She had on board 94 men.

ary DENBY. And we are asking 83.

in WILLIAMS. We now have on board these ships, the *May*-
59; *Sylph*, 32; *Osceola*, 36.

al COONTZ. You want the *Nokomis* next?

in WILLIAMS. The *Nokomis*, 86.

ELLEY. Sixty-six, is it not?

ary DENBY. Sixty-six are asked for.

in WILLIAMS. The *Potomac*, 42.

al COONTZ. You do not want the *Potomac*; you want the

in WILLIAMS. She is on our list.

ELLEY. How many for the *Vixen*?

in WILLIAMS. The *Vixen*, 72. I have given what we are
or and this is the number we now have on board: *Scorpion*,
Osceola, 111; and *Napa*, 40.

al COONTZ. Mr. Kelley does not want that.

ELLEY. How many for the *Isabel*? That is the only one left.

in WILLIAMS. Eighty-three.

ELLEY. Let us add to those the others that make the 12.

the other seven?

in WILLIAMS. The *Mayflower* you have, the *Sylph* you have,
Nokomis you have, the *Tadousac* you have.

ELLEY. No.

in WILLIAMS. The *Vixen* you have.

ELLEY. What are the others?

LIVER. What about the *Tadousac*? Where is she?

al COONTZ. We had it at the same place; it is at the bottom
203 on your other list.

ELLEY. The *Osceola* is down here as a fleet tug, and she is at

al COONTZ. That is her job; she is a special duty craft and
Haiti. Several of them are tugs.

ELLEY. Is that a tug?

al COONTZ. Yes, sir.

Mr. KELLEY. You see, we have given you quite a long list of tugs, 29.

Admiral COONTZ. We will come to those and be able to straighten them out by name.

Mr. KELLEY. What about the *Osceola*?

Captain WILLIAMS. The next one is the *Potomac*.

Mr. KELLEY. Where does she come in?

Captain WILLIAMS. I think you will find her among the tugs.

Mr. KELLEY. Then that is another tug. Why do you not keep of the tugs together?

Admiral COONTZ. These are vessels that are station ships.

Mr. KELLEY. All right; what are the others?

Captain WILLIAMS. Have you the *Scorpion*?

Mr. KELLEY. No. Where is she?

Captain WILLIAMS. She is at Constantinople.

Mr. KELLEY. I mean on what list is she?

Admiral COONTZ. She is a special duty craft.

Mr. KELLEY. Let us see whether we can find the rest of these sels. What are the others? Is the *Scorpion* a tug?

Admiral COONTZ. No; she is a station ship at Constantinople she has been carried as a special duty craft all the time. You! the *Osceola*, the *Potomac* and the *Tadousac*.

Mr. KELLEY. I have not the last one, the *Tadousac*; where is at this list?

Commander HILL. You will find her on page 30-A.

Mr. KELLEY. That is a list of tugs, too?

Commander HILL. Yes.

Mr. KELLEY. What are the others?

Captain WILLIAMS. You have the *Vixen*, the *Scorpion* and *Pensacola*.

Mr. KELLEY. The *Pensacola*?

Captain WILLIAMS. Yes.

Mr. KELLEY. Is that a tug?

Captain WILLIAMS. No; she is a cargo carrier.

Mr. KELLEY. She is a cargo ship?

Captain WILLIAMS. Yes.

Mr. KELLEY. At Guam?

Captain WILLIAMS. She is on special duty.

Mr. KELLEY. Then we can cut her off the cargo ship list.

Admiral COONTZ. Yes; if you put her on this list.

Mr. KELLEY. Is that all?

Captain WILLIAMS. The *Napa*.

Mr. KELLEY. Where does that come in?

Captain WILLIAMS. That is a tug.

Commander HILL. She is on page 30.

Captain WILLIAMS. The *Ontario*, another tug, and the *Monte* a tug. I have 12 on my list.

Mr. KELLEY. I have 13, Captain.

Captain WILLIAMS. May I call them off again: *Mayflower*, *Osceola*, *Nokomis*, *Potomac*, *Tadousac*, *Vixen*, *Scorpion*, *Pensacola*, *Napa*, *Ontario*, *Montcalm*.

Mr. KELLEY. That covers all but the *Isabel*.

Captain WILLIAMS. You are going to get mixed up on this you include her.

ELLEY. Where does the *Isabel* belong?

al COONTZ. Right there.

ander LEAHY. We have not reached her yet.

ELLEY. Where is she?

ander LEAHY. I will find her for you.

ELLEY. We have one more ship on here than the captain, and all.

al COONTZ. Yes.

ELLEY. How many are asked for the *Osceola*?

in WILLIAMS. I am asking for 34.

ELLEY. The *Potomac*?

in WILLIAMS. Forty-two.

ELLEY. The *Scorpion*?

in WILLIAMS. One hundred and thirty-two.

ELLEY. The *Tadousac*?

in WILLIAMS. Thirty-nine.

ELLEY. The *Pensacola*?

in WILLIAMS. One hundred and ten.

ELLEY. The *Napa*?

in WILLIAMS. Thirty-nine.

ELLEY. The *Ontario*?

in WILLIAMS. Fifty-four.

ELLEY. The *Montcalm*?

in WILLIAMS. Thirty-nine.

ELLEY. How many does that make altogether?

in WILLIAMS. You have not called the *Mayflower* or *Sylph*.

ELLEY. I have those, and we will just foot that up. What total for the whole thing?

in WILLIAMS. Eight hundred and nineteen asked for; but s not include the *Isabel*.

ELLEY. Now give us the number on board.

al COONTZ. Nine hundred and seventy-five.

ary DENBY. Have you included the *Isabel*?

al COONTZ. Yes, sir; with 39 men.

ary DENBY. But you do not include the *Isabel* in the 819?

al COONTZ. No, sir. You ask for 39 on the *Isabel*, do you

in WILLIAMS. Eighty-three.

ary DENBY. That makes a total asked for of 902, which the *Isabel*.

al COONTZ. And 975 on board, including the *Isabel*.

ELLEY. And how many asked for?

ary DENBY. Nine hundred and two.

n WILLIAMS. We have 958 on board.

ELLEY. They do not vary greatly from the number you

WILLIAMS. With the *Isabel* in that will make 902.

ELLEY. Nine hundred and two that you are asking for?

n WILLIAMS. Yes, sir.

ELLEY. The number of fleet tugs on the list submitted the y was 29. Six of those have been transferred to the list l duty craft, leaving 23 under the head of fleet tugs. This ce the number of men required for fleet tugs from 1,131

to 884 and increase the number of men required for special duty craft by 247, so far as the tugs are concerned, and then there are two other vessels added to the special duty craft, the *Scorpion* and the *Pensacola*, with a further additional number of men of 242, making the special duty craft total 902.

REPAIR SHIPS.

Now, the repair ships. Please give the names of the repair ships! Captain WILLIAMS. We are asking for the *Prometheus*, 430, and the *Vestal*, 430, a total of 860 men.

Mr. KELLEY. How many men have you on board of each now!

Captain WILLIAMS. They have on board the *Prometheus*, 370, and the *Vestal*, 357, totalling 727.

STORE SHIPS.

Mr. KELLEY. Three store ships?

Captain WILLIAMS. We are asking for the *Arctic*, 188, the *Bridge*, 189 and the *Rappahannock*, 268, a total of 645. They have on board now the *Arctic*, 220, the *Bridge*, 203, and the *Rappahannock*, 235, a total of 658.

FUEL SHIPS.

Mr. KELLEY. Four colliers?

Captain WILLIAMS. We are asking for the *Orion*, 164; the *Nereus*, 164; the *Jason*, 164; and the *Proteus*, 164; a total of 656.

Mr. KELLEY. How many have you on board of each of those vessels?

Captain WILLIAMS. We have on the *Orion*, 209; the *Nereus*, 141; the *Jason*, 152; and the *Proteus*, 153; a total of 655.

Mr. KELLEY. Ten oilers?

Captain WILLIAMS. We are asking for the *Arethusa*, 78; *Braso*, 120; *Cuyama*, 120; *Kanawha*, 120; *Natchez*, 101; *Pecos*, 120; *Patoka*, 91; *Ramapo*, 91; *Sapelo*, 91; *Trinity*, 91; a total of 1,023. There are on board: *Arethusa*, 78; *Brazos*, 112; *Cuyama*, 95; *Kanawha*, 101; *Natchez*, 118; *Pecos*, 107; *Patoka*, 99; *Ramapo*, 119; *Sapelo*, 16; *Trinity*, 101; a total of 946.

Admiral COONTZ. I think there should be a note made there that the *Sapelo* is about to go into commission or to replace something else.

AMMUNITION SHIPS.

Mr. KELLEY. The ammunition ships come next.

Captain WILLIAMS. We are asking for the ammunition ship *Nitro*, 177, and the ammunition ship *Pyro*, 177; total of 354.

Mr. KELLEY. Is that the number they have on board now?

Captain WILLIAMS. The *Nitro* now has on board 217 and the *Pyro* 212; total of 429.

CARGO SHIPS.

Mr. KELLEY. Now the cargo ships, eight of them. There will be seven, because you have taken the *Pensacola* out.

Captain WILLIAMS. *Kittery*, 87; *Newport News*, 113; *Bath*, 88; *Capella*, 91; *Sirius*, 91; *Vega*, 91; *Beaufort*, 72; a total of 633. They are on board: *Kittery*, 113; *Newport News*, 138; *Bath*, 112; *Capella*, 41; *Sirius*, 41; *Vega*, 81; *Beaufort*, 71; a total of 637.

TRANSPORTS.

Mr. KELLEY. Now the four transports?

Captain WILLIAMS. *Henderson*, 397; *Argonne*, 222; *Chaumont*, 214.

Mr. KELLEY. Those are the only three transports you have except the *Hancock*, which is a shore-station vessel?

Secretary DENBY. And the *Regulus*.

Mr. KELLEY. She is out of commission.

Secretary DENBY. She is just coming in.

Mr. KELLEY. The three transports total how much?

Captain WILLIAMS. Eight hundred and thirty-three.

We have on board the *Henderson*, 401; *Argonne*, 211; *Chaumont*, 214; a total of 852.

Secretary DENBY. The *Regulus* is not out of commission; she is just coming in.

Mr. KELLEY. When she comes in she will take the place of one of the others?

AIRCRAFT CARRIERS AND TENDERS.

Aircraft carrier *Langley*?

Captain WILLIAMS. We are asking for the aircraft carrier *Langley*, 1919.

Mr. KELLEY. How many has she on board now?

Captain WILLIAMS. Two hundred and sixteen.

Mr. KELLEY. For the aircraft tender *Wright*, how many are you asking?

Captain WILLIAMS. We are asking for the two aircraft tenders *Aroostook*, 250, and the *Wright*, 286; a total of 536. They have on board now, the *Wright*, 390, and the *Aroostook*, 240; total of 630.

Mr. KELLEY. These two you have just named, the *Aroostook* and the *Shawmut*, will be mine layers?

Admiral COONTZ. The aircraft tenders are the *Aroostook* and the *Wright*. The aircraft carrier is the *Langley*. They are entirely separate things.

Mr. KELLEY. You said the other day that the *Aroostook* was with the Pacific Fleet and was to be replaced as an aircraft tender by the *Langley* and become a mine layer.

Admiral COONTZ. If I said so I will stand by it; I do not remember. I know that one vessel is to relieve the *Baltimore*, which goes out of commission.

Mr. KELLEY. That gives you one aircraft carrier, the *Langley*, and one aircraft tender, the *Wright*, and two mine layers?

Admiral COONTZ. Yes, sir; the *Baltimore* and *Shawmut*.

Mr. KELLEY. It figures out about the same.

Captain WILLIAMS. We are asking for one mine layer with 369 men—the *Shawmut*.

MINE SWEEPERS.

Mr. KELLEY. Ten mine sweepers; have you a list of those? Those are tugs again?

Captain WILLIAMS. No, sir: they are mine sweepers.

Captain WILLIAMS. Ten sweepers, 54 men each, 540 men.

Mr. KELLEY. Those are tugs?

Admiral COONTZ. I think each one of those is a tug. We reduced those from 16 to 10.

Mr. KELLEY. They carry 540 men?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What else have you?

SHORE BASE SUBMARINE TENDERS.

Captain WILLIAMS. The shore-base submarine tenders, a large item.

Mr. KELLEY. What do you want with shore base submarine tenders?

Admiral COONTZ. If you want to go into that, I should like to send for Captain Day.

Mr. KELLEY. Admiral, you have here an item calling for five shore-base submarine tenders, requiring 2,003 men. This seems to be in addition to the seven submarine tenders already requested in another place and requiring 1,882 men. This would make a total of 3,885 men to take care of submarines, both by means of shore-base tenders and tenders that go with the submarines to sea, and this is apparently in addition to any force that may be used in the navy yards for the repair of submarines. Please explain this item.

Admiral COONTZ. The so-called shore-base submarine tenders are located at the following points: At Coco Solo, Isthmus of Panama; Hampton Roads, San Pedro, Pearl Harbor, and New London, and the number of men attached to these tenders is as follows: New London, 500; Hampton Roads, 254; Coco Solo, 409; San Pedro, 456; and Pearl Harbor, 400. There are no navy yards at New London or at Hampton Roads base, although there is a navy yard near by at Norfolk. There is no navy yard at Coco Solo, and there is no navy yard at San Pedro, the nearest navy yard to San Pedro being at Mare Island, Calif. At Pearl Harbor there are no quarters on shore for the submarine men.

Mr. KELLEY. What do you mean by the submarine men—the mechanics?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Civilians?

Admiral COONTZ. No, sir: not civilians. I mean naval people.

Mr. KELLEY. Enlisted men?

Admiral COONTZ. Yes, sir. If I am correct in my recollection there are a few civilian workmen at New London, none at Coco Solo and a few at San Pedro.

Mr. KELLEY. How does that happen?

Admiral COONTZ. Because these enlisted men that we are talking about do the work and carry it on with, I think, very few exceptions.

Captain WILLIAMS. For a long time civilians were forbidden to go on board submarines.

Mr. KELLEY. That is true of any warship, without special permission.

Admiral COONTZ. The ideal arrangement would be to have enough tenders to take care of all of the first line submarines, but that

practicable on account of the expense involved both in the number of ships and the crews to man them. An expedient has been resorted to by establishing so-called shore-based submarine tenders at certain strategic points. These have the same facilities, so far as practice, and the same organization as mobile tenders. For the purposes of administration they are considered as mobile tenders that have been stationed at those points and become fixed on shore. They have, as in the case of mobile tenders, living quarters, messing facilities, sick quarters, supplies of food; clothing, equipment, machine shops to repair the submarines, power plants to charge the batteries and air tanks, for the heating and lighting of the quarters, for the running of the machine shops, etc., storage for spare parts, etc.

Mr. KELLEY. Admiral, it will not be necessary to read that entire statement into the record.

Admiral COONTZ. I will ask the director of submarines, who is now on his way here, to further explain this matter. I will admit that this number seems excessive to me, but I believe that he can thoroughly explain it, because he is thoroughly familiar with the situation.

Mr. KELLEY. We have a big plant at New London, on which we spent millions of dollars.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Why should we have a tender hitched up alongside there?

Admiral COONTZ. The tender carries all the accounts, and attends the submarines when they are exercising in adjacent waters.

Mr. KELLEY. It seems to me that we spent six or seven million dollars on that plant.

Admiral COONTZ. I want the director to explain that fully to you.

Mr. KELLEY. It strikes me that this is a mistake.

Secretary DENBY. I am frank to say that I must be shown in regard to that. The only question is whether the number requested is excessive, or not.

Mr. KELLEY. Captain Day, there is an item here covering 2,003 men at five shore-based submarine tenders, and I want you to tell us about it.

Captain DAY. Yes, sir. The idea, if we could get them, would be to have mobile tenders for all submarines, but we have not, and, therefore, they are based on shore. The arrangement of our organization, as far as possible, is to have the people at the submarine bases to act as though they were attached to the mobile tender which is tied up there and spread out on shore.

Mr. KELLEY. How did they happen to do that?

Captain DAY. Because they have to have some place to eat and sleep.

NEW LONDON, CONN., SUBMARINE BASE.

(See p. 326.)

Mr. KELLEY. At New London you have a big plant costing six or seven million dollars.

Captain DAY. That was a war-time growth. They had big experimental plants there, including all sorts of things.

Mr. KELLEY. Who does know about them?

Captain DAY. All of that has been discontinued. It was a war-time activity which has ceased.

Mr. KELLEY. They have 570 men up there?

Captain DAY. Yes, sir.

Mr. KELLEY. That would be enough to man 20 or 30 submarines!

Captain DAY. Yes, sir; it would be enough to man two tenders.

Mr. KELLEY. How many tenders are based up there?

Captain DAY. Just now there are approximately 15 submarines based at New London.

Mr. KELLEY. Does it take 570 men to take care of 15 submarines!

Captain DAY. It takes 600 men in a mobile tender to take care of them. It requires less men with a shore-based tender than with a mobile tender.

Mr. KELLEY. I know; but you have mobile tenders.

Captain DAY. No, sir.

Mr. KELLEY. You have made arrangements for seven, and you have only 61 submarines that are in operation.

Captain DAY. Sixty-one of the first line and 27 of the second line. A part of them are up there, and they are in operation. The submarine base gives them shelter, food, medical attendance, repair, electrical power for charging the batteries, compressed air, takes care of the storage batteries, and that sort of thing.

Mr. KELLEY. Do they operate the submarines?

Captain DAY. No, sir; the submarines are operated by their own crews.

Mr. KELLEY. What does the crew do when they come back in?

Captain DAY. They go to work and get ready to go out again. The Diesel engine requires perpetual overhauling, and the crew takes care of minor repairs, but at these submarine bases they keep repair gangs to do work that the crew can not do.

NUMBER OF MEN REQUIRED TO OPERATE AND REPAIR SUBMARINES.

Mr. KELLEY. You see what it is you are asking for. You are asking for 3,800 men to take care of these ships that require only 3,009 men to operate them.

Captain DAY. Yes, sir.

Mr. KELLEY. There must be something wrong about that.

Captain DAY. No, sir; every nation in the world that has submarines does the same thing. If we had these shops with mobile tenders it would take half as many men again, roughly. Each tender averages about 300 men.

Mr. KELLEY. You do not mean to say that it would take 60 men keep a submarine in repair?

Captain DAY. In repair and in operation; yes, sir.

Mr. KELLEY. I mean in repair alone.

Secretary DENBY. Plus the crew?

Captain DAY. No, sir; counting the crew.

Secretary DENBY. I am frank to say that these appear to be extraordinary figures to me. I realize, of course, that the submarine is the most extraordinary craft in the world, and that it requires a great deal of attention. How many submarines are based at New London?

Captain DAY. Fifteen.

Secretary DENBY. What is the number of men involved?

Captain DAY. There are eight boats with 21 men, four with 34 men, and three with 20 men.

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Secretary DENBY. There is an extraordinary disparity between the number of men required in this service and the number required in any other branch of the service.

Captain DAY. We have worked out the difference between the mobile tender and the shore base. On the tender afloat 49 men are required for each submarine, and this average is 45.

Mr. KELLEY. There must be something wrong about those figures showing 49 men on a tender for each submarine. The officers told me yesterday that they carried one around the world without being laid up anywhere.

Captain DAY. They can run a month.

Mr. KELLEY. They were hardly ever out of commission. To-day you come in and tell us that more men are needed to keep them in repair than are required to operate them every day in the year.

Secretary DENBY. Of course the station must be operated if it is to be kept in running condition.

Mr. KELLEY. There must be something wrong somewhere.

Captain DAY. People can not live on those craft indefinitely; they can live there while they are running; they can live there a month, but at the end of that time they must have some place to eat and sleep.

Mr. KELLEY. I am not finding fault with that, but I am finding fault with the number of men apparently necessary to keep in repair ships that do not get out of repair very much.

Captain DAY. You have to have men to take care of the submarines and to take care of the tender. Take the *Canopus*; she has 32 men, and she tends eight submarines.

Mr. KELLEY. It looks as though you are planning to be repairing them all the time.

Captain DAY. They not only keep up the repairs on the submarines, but they have to run their own ships; it takes a crew to run one of the ships.

Mr. KELLEY. I know it does; but either you were wrong yesterday or wrong to-day; I do not know which.

Captain DAY. No, sir; I am sorry my stories do not seem to agree.

Mr. KELLEY. My statement yesterday was that it was my impression that these ships needed a great deal of repairing and were laid up a great deal of the time; you said that was not so, but that they were running nearly all the while, and now you come in with the statement that it takes 48 men—was that the number?

Captain DAY. Forty-eight or forty-nine.

Mr. KELLEY. All the year around to repair every submarine in the Navy.

Captain DAY. No; not only to repair them, but to furnish living quarters. For instance, they will go out for a week; at the end of that time they will come back, and it will take three days to overhaul them, and we must have men there to do that.

Mr. KELLEY. They go out a week, and then they are laid up a week!

Captain DAY. Laid up three or four days; they are tied up.

Mr. KELLEY. For repairs?

Captain DAY. For overhauling.

Mr. KELLEY. That does not tally with what you said yesterday about their being in shape to run practically all the time.

Captain DAY. We will take it the other way; they run for a month, then they are laid up for such repairs as are necessary, and we must have the men there to make the repairs.

Mr. KELLEY. I think you are proving conclusively that there is necessity whatever for crews for all of these ships.

Captain DAY. I am sorry you take it that way, sir. But there is a ship in the world that just keeps on running indefinitely. One of the best cases in the world was the transport I had during the war; it would run eight days full tilt, then come in for eight days, and everybody on the Hoboken docks came aboard to do things to the lines.

Mr. KELLEY. But you have another group on shore to do those things to her, larger than the one you have on the ship.

Captain DAY. We had three times as many to come aboard and make repairs there than we had in the engineers' force. Men were lying over each other in the engine room and thought they were doing a wonderful piece of work to keep her going.

Mr. KELLEY. You are asking for \$2,000,000. Why do you not employ civilians?

Captain DAY. It would cost more than it would to do it this way. It has been brought up and thrashed out time and again.

Mr. KELLEY. How many repairs do you have made at the navy yards?

Captain DAY. Practically nothing in the way of repairs at navy yards, because they do their own repairs.

Mr. KELLEY. Who do their own?

Captain DAY. The submarines and the base tenders.

Admiral COONTZ. I do not recall any submarine going to a navy yard for a long time.

Captain DAY. They have gone in for alterations, but for repairs practically nothing. The alterations were authorized as a result of experience during the war have not yet been finished, and for that purpose the submarines are in navy yards, but the repairs in the navy yards are very slight.

Mr. KELLEY. How long have you had charge of the submarines?

Captain DAY. Nine months, sir.

Mr. KELLEY. Do you have charge of their operation or just their repairs?

Captain DAY. I am aid to Admiral Coontz in operations.

Mr. KELLEY. Who had charge of it before you?

Captain DAY. Capt. G. W. Williams, U. S. N.

Mr. KELLEY. This captain?

Captain DAY. No; he is now the captain of the *New Mexico*.

Mr. KELLEY. How do you group these ships for operation?

Captain DAY. They are grouped by classes as far as the capacity the tenders will permit. For instance, 8 H-boats are in one division in the Pacific and 8 K-boats in one division on this side.

Mr. KELLEY. I mean, how many do you send with the fleet?

Captain DAY. We send as many divisions as we can get out with the fleet. At the present moment we have the *Savannah* with 10 boats, the *Fulton* with 2 T-boats, and the *Bushnell* with 6 O-boats.

Mr. KELLEY. How many do you send along and what is your purpose? In what way do you determine how many to send?

Captain DAY. So far we have been sending all we can.

Mr. KELLEY. And if you had 100 you would send them all?

Captain DAY. No.

Mr. KELLEY. Well, you want 86. -

Captain DAY. No, sir; they do not all go to the fleet; there are of them at Manila, 10 at Hawaii, 14 at the Canal Zone.

Mr. KELLEY. You have seven tenders that take some of them to sea?

Captain DAY. Yes, sir.

Mr. KELLEY. So they must be with the fleet?

Captain DAY. They should be with the fleet. Of those seven tenders two are now at Cavite; they took 10 boats out and a tender is coming back.

Mr. KELLEY. Two tenders at Cavite?

Captain DAY. Yes; two tenders went out with 10 boats and one of them is coming back just as soon as she gets the submarine established there, and the other will have to stay. On this side we have three tenders with the fleet, the *Savannah*, the *Bushnell*, and the *Fulton*.

Mr. KELLEY. Can they keep up with the fleet?

Captain DAY. No, sir; they can make about 10 knots.

Mr. KELLEY. Then why do you say they are with the fleet?

Captain DAY. They are operating with the fleet; they are not with the fleet at Guantanamo. The submarines can keep with the fleet, but the tender either has to go ahead and meet the fleet or follow on and pick them up.

Mr. KELLEY. And they use them in maneuvers, in protecting the ships, and all that?

Captain DAY. Yes, sir.

Secretary DENBY. There is one thing that ought not to be overlooked in this connection, and that is that many of these men, both on the mobile tenders and shore-base tenders, are not strictly seamen at all.

Mr. KELLEY. They are housekeepers.

Secretary DENBY. But serve on the ships to operate the submarines at sea.

Admiral COONTZ. They do all the cooking and all the baking.

Captain DAY. Cooking, baking, and cleaning; for instance, the engineer and repair gang at New London, as I recall it, has 192 men that is, to run the power plant at the base and do the repairs on the submarines.

Mr. KELLEY. Then the submarines are not there very much because the fleet is all down the other way?

Captain DAY. The fleet is now, but we have what we call an experimental division up there, consisting of eight boats, and for S-boats running engineering trials.

Mr. KELLEY. That was not very much of a place to build a submarine base, was it?

Captain DAY. Yes; it is a first-rate place.

Mr. KELLEY. With the cold weather in the winter?

Captain DAY. There is cold weather anywhere on this coast in winter.

Mr. KELLEY. Well, not so much as at New London. You have another base at Hampton, have you not?

Captain DAY. A little one. I would rather be at New London in winter than at Hampton Roads. Then the beauty of the thing New London is that when they get out of the river they have p enough water in which to operate, while at Hampton Roads y have to go out 40 miles to get deep enough water.

Mr. KELLEY. But if anything happened to one of them you would re to go 1,000 miles or more to your base?

Captain DAY. No; she would go to the nearest place.

Mr. KELLEY. I should think the nearest place would be down here Hampton Roads.

Captain DAY. It would depend on where the fleet happened to be. e fleet is north in the summer.

Mr. KELLEY. And south in the winter.

Captain DAY. Yes, sir. Another thing is that we have a submarine school at New London. The submarine service is different m anything else; a man can not jump into a submarine and run he has to get some instruction and training first.

Mr. KELLEY. You can not jump into any ship and run it.

Captain DAY. No; but a man who knows surface craft can jump o one and can very soon operate, but a man can not jump into a bmarine and do that.

Mr. KELLEY. I doubt whether a man on a surface ship could np into a battleship and run it.

Captain DAY. But a man who knows a battleship can come nearer nping into a battleship and running it than a submarine, because : submarine is a different sort of business; while with a battleship nan is used to the same sort of business because he has been in it fore. However, on a submarine they have to deal with storage tteries, air compressors, and Deisel engines, and a Deisel engine something that nobody except the submarine service has very ach to do with.

Secretary DENBY. Nobody seems to want to have much to do th the submarine.

Captain DAY. I am sorry to say they do not want to have much do with it.

Mr. KELLEY. Have you something further to say about these 000 men for the shore submarine base at New London?

DISTRIBUTION OF PERSONNEL AT NEW LONDON BASE.

Captain DAY. You asked about what the men at New London did, d I have the details as to that station. And, by the way, they have n brought down from 2,700 to 500.

Mr. KELLEY. What is the use of talking about that, because that s during the war.

Captain DAY. Power-plant operation, 20 men. That is a big power nt. with four boilers, air compressors, generators, etc.; machine p. 25 men; submarine repair force, 10 men; boat repair party, 6 1: coppersmith and ship fitter shop, 21 men; foundry, 4 men; tern shop, 2 men; carpenter shop, 9 men; engineers' office, 3 men; tery overhaul shop, 18 men; electrical shop, 7 men; radio shop, en: 35-foot motor boats, 28 men; 50-foot motor sailors, 10 men;

40-foot motor sailors, 8 men; blacksmith shop, 3 men; garage force, 6 men; chauffeurs, 10 men.

Mr. KELLEY. How many?

Captain DAY. One for each truck and one for each passenger. We could spare 2 men of that number out of the 500; optical shop, 2 men; gyro compass shop, 2 men; torpedo-repair force, 18 men; have something like 300 torpedoes to keep in condition; assistant office of day on deck, 5 men; sail locker, 3 men; signal station, 5 men. Another 5 men can be spared.

Secretary DENBY. Do you mean spared from the 500?

Captain DAY. Yes; we have spared 7 so far; mess hall, 40 men; that is, taking care of the messes of the submarine crews and marine plant; 1 cobbler, 2 tailors, 3 barbers.

Mr. KELLEY. Do you furnish a barber for the boys up there?

Captain DAY. Yes; but they pay for their haircuts and so this gives them a chance to get them. Brig, 7 men; night patrol—

Mr. KELLEY (interposing). That is pretty elaborate, is it not furnishing of barbers?

Captain DAY. It is done on every ship in the service, sir. Six at main gate, 4 men; wardroom mess, 36 men; cabin mess, 12 men; commissary store, 6 men; canteen, 2 men; payrolls, etc., 7 men; supply department—that is, yeomen, storekeepers, gunner's mate, 26 men; morale department, 2 petty officers; printing shop, 1 man; and personnel officers, 5 men.

Secretary DENBY. What does the print shop do?

Captain DAY. It does the printing for the station, for the work, and such work as they have to do for the boats and the ship itself. It is all necessary work and that was taken up with the Committee on Printing and allowed.

Mr. KELLEY. They took your judgment about that, I presume.

Captain DAY. Yes, sir. Yeomen for the submarine division, 4 men each. Then for the school, 26 men under instruction for the submarines.

Mr. KELLEY. Twenty-six men undergoing instruction?

Captain DAY. Yes.

Mr. KELLEY. That is about half enough for one ship?

Captain DAY. Yes; but these men are studying specialties: electrical engineering, 5 in submarine torpedoes, 9 in mechanical engineering, and 7 in laboratory upkeep.

Mr. KELLEY. Admiral, do you remember about this plant at New London? Is this not quite a white elephant?

Admiral COONTZ. I will be perfectly frank and say I have not seen it but once; I have never gotten the opportunity to go to the Solo and I have not visited the one at Hampton Roads nor the one at the Hawaiian Islands. I have not been in the submarine base for about 12 years and I simply have not had time to go around and look at them. I have been out of town but twice, in the last 12 months, and have not had the chance. I would like to go over the plant; I would like to have everybody go over the plant and I think Captain Day would, too; and if there is anything wrong with it we would like to find it out and remedy it.

ALLOCATION OF SUBMARINES FOR 1923.

Mr. KELLEY. This plant costs \$3,461,942.44. Give us the distribution of the submarines, Captain, as planned for next year.

Captain DAY. Manila, 10 S-boats; Hawaii, 19 R-boats; San Pedro, 12 old boats of the H and L class.

SAN PEDRO SUBMARINE BASE.

Mr. KELLEY. We have no submarine base at San Pedro, have we?

Captain DAY. Yes, sir.

Mr. KELLEY. But it is one we do not own.

Captain DAY. Yes.

Admiral COONTZ. It is a free base.

Secretary DENBY. Did we do much building there?

Captain DAY. No; it is an adaptation of what was there on the pier; they had a great big freight shed and a big two-story building on the end of the pier.

Secretary DENBY. And it did not cost very much to convert it?

Captain DAY. Not much.

Secretary DENBY. But we do not own it?

Captain DAY. No, sir.

Mr. KELLEY. How much have you spent at San Pedro, Mr. Reed?

Mr. REED. \$190,000 for improvements.

Mr. KELLEY. How did we get in there?

Admiral COONTZ. We got in there unquestionably during the war.

Mr. KELLEY. It is your intention to keep that up this coming year?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Why do you not go down to the other place where you have shops?

Admiral COONTZ. The one particular reason is that when you get outside of San Pedro you can dive into deep water inside of 20 or 30 minutes, while at San Diego you know the number of miles you have to go to get out to deep water, so that San Pedro means a great saving in time and everything else. It has been gone into by a number of boards and was gone into by the House and Senate committees a year ago, and they unanimously reported in favor of keeping San Pedro.

Mr. KELLEY. Have you an option on the land?

Admiral COONTZ. We either have an option on the land or they are offering a large amount of land for \$1.

Mr. KELLEY. Is it a steep and rocky shore there?

Admiral COONTZ. A part of it is on the beach level and the rest is probably as high as this room and then there is a level place.

Mr. KELLEY. You will have to grade it?

Admiral COONTZ. No, sir; we will not have to any grading that I know of.

Mr. KELLEY. There is no harbor there?

Admiral COONTZ. You are inside of the breakwater.

Mr. KELLEY. But it is an artificial harbor?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. I remember somebody's report to the effect that in case of war we would have to move away from there.

Admiral COONTZ. That might be said of New York City, the same thing.

Mr. KELLEY. Well, New York City is pretty well fortified, is it not?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Do you intend to fortify this place?

Admiral COONTZ. I imagine the War Department does in time.

Mr. KELLEY. You are right out in the open there, and there is no protection for these little boats at all.

Captain DAY. We would not want anything better than to have somebody come in there and try to shoot us up.

Mr. KELLEY. I am only quoting what I remember of a naval officer's report.

Admiral COONTZ. It was considered a satisfactory naval station by the committees of the Senate and the House who went there last year.

Mr. KELLEY. Who was at the head of the board that made the first report?

Admiral COONTZ. The first report was the report of Admiral Helm.

Mr. KELLEY. The Helm report says that you can not stay there in time of war; that you would have to move out and go down to some other place.

Admiral COONTZ. I would not dispute that without looking at the book.

Secretary DENBY. Do you recall it, Commander Hill?

Commander HILL. I do recall it, because I was with Admiral Helm at the time, and the Helm report on San Pedro mentions it as being the best available site for a submarine base.

Mr. KELLEY. In peace time?

Commander HILL. No; at any time.

Mr. KELLEY. It specifically states in just as plain English as I can write that in time of war you would have to move away from San Pedro and go to the other place.

Secretary DENBY. That might refer to the outer harbor.

Commander HILL. Only two battleships can lie behind the breakwater, but the submarine base is at the extreme inner end of the artificial harbor, and I do not know of any place that will ever be smoother in time of storm than that place.

Mr. KELLEY. You are going to keep 12 boats there?

Captain DAY. Yes, sir.

Mr. KELLEY. Where are the rest of them?

ALLOCATION OF SUBMARINES FOR 1923.

(See p. 323.)

Captain DAY. Six O and seven R boats are at Coco Solo.

Mr. KELLEY. Thirteen in all?

Captain DAY. Yes, sir. Eight K-boats at Hampton Roads, 3 L-boats, 3 N-boats, 2 R-boats, and 1 S-boat at New London for experimental work, and 14 S-boats as they come in will be on the Pacific.

Mr. KELLEY. Where?

Captain DAY. With the Pacific Fleet, with mobile tenders.

Mr. KELLEY. Fourteen with the fleet in the Pacific? They are boats are they?

Captain DAY. Yes; and 14 with the fleet in the Atlantic; also 3 T 10 O boats in the Atlantic.

Mr. KELLEY. Where in the Atlantic?

Captain DAY. With the fleet.

Mr. KELLEY. Why did you not put them all with the fleet?

Captain DAY. They are all with the fleet except those at New London, Coco Solo, and Hampton Roads.

Mr. KELLEY. You said the Atlantic Fleet had 14 R-boats?

Captain DAY. Yes, sir; it will have.

Mr. KELLEY. And then you said 3 T and 10 O boats with the Atlantic Fleet?

Captain DAY. I should have said 14 S-boats.

Mr. KELLEY. Fourteen S-boats with the Pacific Fleet?

Captain DAY. Yes; and 14 S-boats with the Atlantic Fleet, plus 3 boats and 10 O-boats.

Mr. KELLEY. Did you say 14 S-boats in the Atlantic?

Captain DAY. Yes, sir.

Mr. KELLEY. And 3 T-boats and 10 O-boats?

Captain DAY. Yes, sir.

Mr. KELLEY. They are all with the fleet?

Captain DAY. Yes, sir; as soon as the S class are put in commission.

Mr. KELLEY. Of all these boats, you have only 42 with the fleet?

Captain DAY. Yes, sir.

Mr. KELLEY. And the rest of them are stationed at the points you mentioned?

Captain DAY. Yes, sir; and at Manila and Hawaii.

Mr. KELLEY. What sort of a plant have we at Coco Solo?

Captain DAY. We have a very good plant at Coco Solo.

Mr. KELLEY. Did it cost as much as the plant at New London?

Captain DAY. No, sir; I do not know what it did cost, but it is not complete as the one at New London.

Mr. KELLEY. Have you as many men there as at New London?

Captain DAY. No. We are supposed to have 409 men at Coco Solo, we actually have 390.

Mr. KELLEY. About as half as many as at New London?

Captain DAY. A little more than half.

Mr. KELLEY. What do the boats at Hampton Roads do?

Captain DAY. They are training men for the S-boats as they come; that is what they are used for now; they are kept in commission for coast patrol and for training, and are kept in commission two-thirds of a crew.

Mr. KELLEY. Admiral, which of these various activities should be up if some of them are to be discontinued.

Admiral COONTZ. If any of them are to be discontinued, of course, the activities would be the last to be discontinued.

Mr. KELLEY. And there are 42 boats in that service?

Admiral COONTZ. Yes, sir.

Secretary DENBY. I think you ought to qualify that answer. There are needed with the fleet, naturally there must be auxiliaries in addition, so that for the fleet there would be a need for something in addition to the 42, but how much in addition is a different proposition.

Admiral COONTZ. I understood him to say that if we started to do away with some of the submarines, what would we keep, and, of course, we would keep those with the fleet.

NEW LONDON SUBMARINE BASE.

(See p. 315.)

Mr. KELLEY. Admiral, the Captain says that the 14 to be kept at New London, the 4 N, 4 K, 4 L, 1 R, and 1 S boats, are for experimental purposes.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What does he mean by that?

Admiral COONTZ. He means that they are experimenting with every new device that comes along in the submarine line, from listening devices up.

Mr. KELLEY. Then there would be 14 that would not require personnel on them.

Admiral COONTZ. They are all two-thirds manned, I think.

Captain DAY. Yes, sir.

Admiral COONTZ. Every submarine we keep must be partially manned or else it will soon go to pot.

Mr. KELLEY. It gets right back to what I had in my mind yesterday, that this is such an experimental part of the Navy—because you are always working on these engines, batteries, and everything else, trying to perfect them and make them more seaworthy and safe—that of necessity quite a large number of these boats are constantly out of commission and they are laid up temporarily.

Captain DAY. But each boat laid up must have men to see that the batteries and engines are kept in order.

Mr. KELLEY. But if you have 175 men on shore doing nothing else, can they not do that? Why do you have to have a crew to keep the batteries and everything in condition when you have expert mechanics on shore who are paid for the work of making these improvements and repairs? Have you not a doubleheader there?

Captain DAY. No, sir.

Mr. MADDEN. After all, do you not take the mechanics who are on shore and have them do this work?

Captain DAY. No, sir.

Mr. KELLEY. He has 500 men; half of them are mechanics and the other half are housekeepers, bookkeepers, and the usual employees you use in running a place like that. But if there are 14 boats there all the time doing experimental work, why provide any personnel as long as you have so many on shore at that point who, undoubtedly could take care of these little boats without letting them run down. That could be done, could it not?

Captain DAY. No, sir. These boats go to sea; they operate three or four days a week in carrying on their experimental work.

Mr. KELLEY. When they go to sea they take the shore men along with them, do they not?

Captain DAY. No, sir.

Mr. KELLEY. What do they do while the boats are away?

Captain DAY. They are working on the boats that are in; they shifted around from boat to boat, and they work on the power plant itself.

Mr. KELLEY. You use over 300 men on that little base?

NUMBER OF MEN FOR CARE AND REPAIR OF SUBMARINES.

Captain DAY. No; 192 men to take care of the repairs on the boats the power plant at the station.

Secretary DENBY. How many did you say the power plant took?

Captain DAY. The power plant takes 20.

Secretary DENBY. How many men who are purely mechanics and art men have you to work on the boats?

Mr. KELLEY. There are no civilians?

Secretary DENBY. No.

Mr. KELLEY. What are the ratings of these men?

Secretary DENBY. Would you mind letting him answer my question?

Mr. KELLEY. I think that is the same question.

Secretary DENBY. What I am getting at is how many men are at the station for the purpose of taking care of and repairing the submarines.

Mr. KELLEY. I think he said 192.

Captain DAY. That was the total, but I am trying to separate those used for the shore plant.

Mr. KELLEY. Four or five men run the power house?

Captain DAY. No; the powerhouse is charged with 20.

Mr. KELLEY. Does it take 20 men to run a little power house?

Captain DAY. It is not a little power house but a big one.

Mr. KELLEY. For what do you use power?

Captain DAY. For lighting, furnishing electricity to boats, and furnishing compressed air to boats.

Mr. KELLEY. But not when the boats are away.

Captain DAY. The boats come in and charge at night.

Secretary DENBY. How many men are there in the service of the boats? The other men are in the service of the men. How many men are actually serving the boats, mechanics, etc.?

The CHAIRMAN. There are 20 running the plant; that makes 172.

Mr. KELLEY. You could not get 172 men on these boats.

Captain DAY. Take 20 men off, that gives 172.

Mr. KELLEY. You have only 15 boats, some of them at sea?

Captain DAY. Some of them all the time, practically.

Mr. KELLEY. Then the men ashore——

Captain DAY (interposing). They are not loafing because the boats are out.

Secretary DENBY. They are not the mess attendants?

Captain DAY. No.

Secretary DENBY. They are not the officers in charge?

Captain DAY. No, sir.

Secretary DENBY. They are simply 172 men whose sole function is to take care of these boats and make the repairs necessary?

Captain DAY. That is my difficulty. There is no such line of division. All the men are available for whatever work must be done, either on the submarines or on the base.

Secretary DENBY. That still leaves 172 men whose sole function is to take care of these boats, make the repairs, and keep them in condition. That is what I want to find out.

Captain DAY. Here is the way it is: Powerhouse, 20; machine shop, 23; outside repair, 10; sheet-metal shop, 22; foundry, 4; pattern shop, 4; carpenter shop, 12; optical shop, 4; engineer shop, 3; radio, 1; battery overhaul, 18; charging station, 2; officer, 4; yard craft, 8; boats, 9; boat repair, 2; and mess cooks, 9.

Secretary DENBY. I want to eliminate everybody except those who serve with the submarines.

Mr. KELLEY. There are 18 men attending to the batteries?

Captain DAY. Yes, sir.

Mr. KELLEY. Why not let the 18 men take care of the ships and batteries and close the thing down?

Captain DAY. If you want the rest of the ships to go to the bottom.

Mr. KELLEY. That is only 14 you have there. You do not bring all the boats from Honolulu, Hampton Roads, and Manila, from the fleet up there, you do not take any of them?

Captain DAY. Other boats are frequently there.

Mr. KELLEY. You do not take the 14 boats a long distance from this point. You have 14 of the oldest boats; you have the most worthless.

Secretary DENBY. They are all necessary for the upkeep.

Mr. KELLEY. Not on shore. Why not run the shore station the same as the navy yards—hire the men and let them get their own cooking. This idea of keeping a big boarding house at that place is terribly expensive.

Secretary DENBY. You would lose money if you attempted to hire the men. I do not believe you could hire them.

Mr. KELLEY. That makes it very expensive at New London by reason of having the enlistment feature and the retiring status and feeding, heating, lighting, and lodging, and that applies to every man waiting upon them, even the mess attendants. You have a great many mess attendants. You have more people waiting on the men.

Secretary DENBY. Let us look it over. I think the thing should be gone into carefully.

Mr. KELLEY. You say that these 14 would have only two-thirds on them. That would be about 20 and that would be 280. You have 190 mechanics.

Admiral COONTZ. The general rule is for two submarine people ashore, one afloat. Of course, you know the percentage of German boats that were able to go at any one time.

Mr. KELLEY. Fifteen or 16.

Admiral COONTZ. A very low percentage.

Mr. KELLEY. Still you want a full complement for every ship in the Navy except twenty-odd and a two-thirds complement for them.

Admiral COONTZ. What is the answer? The Secretary now is getting rid of 30, 15 and 15. That is 30 out of 141. That is a very big percentage.

Mr. KELLEY. They are the old original types?

Captain DAY. They are back from 1913, not the old originals.

Secretary DENBY. Of course, I can see it is very clear that a mechanic can not do everything. You have to have a number

cause they have different specialties. With the most delicate mechanism like in the submarines you must have good men.

Mr. KELLEY. You have here at this point the least necessary work and the least desirable boats, with the greatest expense, and a school of 20 men.

Secretary DENBY. That is rather a different proposition. I was talking about the men, not the need of this particular station.

Mr. KELLEY. With these boats scattered all over this way it looks as though the New London proposition was not worth inquiring into. Secretary DENBY. You mean as a whole?

Mr. KELLEY. Yes, sir.

Secretary DENBY. That is a different proposition.

Mr. KELLEY. I do not see why, in the first place, there should have been an investment of three or four million dollars. It looks like in order to keep the investment up it takes this big overhead.

Secretary DENBY. Suppose we did not have it, would you take the 14 boats and base them somewhere else? Is there any magic in New London?

Captain DAY. Not at all. I do not know where it would be.

Mr. KELLEY. You might send five to Manila and one or two to Honolulu?

Captain DAY. Manila and Honolulu are both filled up.

Secretary DENBY. Have we not an experimental station at Newport?

Captain DAY. A torpedo station; yes, sir. There is no place for the men to live if the submarines go there.

Mr. KELLEY. How about Hampton Roads?

Captain DAY. They might be able to take care of part of them here.

Mr. KELLEY. There is plenty of place for the men to live.

Captain DAY. Yes; there is plenty of room in the east camp.

Secretary DENBY. How about Coddington Point?

Mr. KELLEY. I am more interested in the general proposition that the whole testimony shows that a large number of submarines are suddenly laid out and you are asking for full crews on practically everything you have. I think you can get along with a smaller number of men and operate the same boat not quite so often, but have the crews transferred from one ship to another and lay a boat up for repairs. The boys have to rest half the time. If they go out for eight days or a week they have to lay up for a couple of weeks. They get deathly sick and can not stand it.

Secretary DENBY. I hope you will not take up that subject. The submarine crews are so trifling that it does not amount to anything, but their relative value is perfectly enormous; but you are talking now about concentrating the submarines, and that is another matter.

Mr. KELLEY. That is a matter of administration——

Secretary DENBY [interposing]. If I can strip New London?

Mr. KELLEY. Where you put these boats is a matter for you, not for Congress; that I would not know and would not presume to say.

Secretary DENBY. No; if Congress wants to abandon New London, it is a different proposition.

Admiral COONTZ. Look at this end. Here are 10 of these boats at Manila and a lot at Pearl Harbor and some at Coco Solo and all

around. They are needed for strategic purposes. The question of the abandonment of New London is another matter, of course Transferring some of them to some other point, that is a question that is coming up. That is one of the things that must be considered and is being considered.

Mr. KELLEY. Did you not lay up most of the submarines entirely during the war?

Admiral COONTZ. I did not have anything to do with that.

Captain DAY. No, sir; we did not.

Mr. KELLEY. You laid them up?

Captain DAY. No, sir; none was laid up.

Captain WILLIAMS. The submarines were on the other side.

Mr. KELLEY. These 2,000 should not be on the seagoing list?

Admiral COONTZ. It is immaterial whether you put them there.

Mr. KELLEY. These are shore men, shore people absolutely, not seagoing people?

Admiral COONTZ. I see no objection to putting them on the shore list.

Mr. KELLEY. That is where they belong.

Admiral KOONTZ. As I say to you, there must have been some very good reason for putting them there and now there should be a reason for putting them back. I do not know whether they should go back.

Secretary DENBY. It really does not make any difference.

Mr. KELLEY. It is perfectly misleading to put 570 men on the list of men supposed to be at sea when they are running a plant at New London?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That is not the fact about it.

Captain WILLIAMS. The station at New London is directly under the Bureau of Navigation and it has been investigated with the greatest care. I am not certain that we have gotten it solved, but I think Commander Leahy is one of the members of the last board that investigated this subject as to the personnel up there and perhaps he may be able to add a personal touch to it, having seen this thing from the exact point of view that you do. Mr. Chairman, the point of the enormous number of men that we have on shore there. We investigated it and had a committee appointed.

Secretary DENBY. The point that we are now discussing is whether or not the shore base, submarine mechanics and others, should be included in the seagoing fleet personnel.

Captain WILLIAMS. I think that is immaterial.

Secretary DENBY. No; it is very material. We want to find out exactly what men we have to have on the boats. If you take the 2,000 off the seagoing list then you are going to reduce your seagoing list by that number. It is only a question of bookkeeping where they are carried, whether they are carried merely as attached to the Eagle boats, and therefore you would call them seagoing men obviously.

Mr. KELLEY. They are not seagoing men, no matter where they are paid.

Captain WILLIAMS. That seems fair.

Mr. KELLEY. I think they might be carried as a part of the shore complement?

Captain WILLIAMS. Yes, sir.

cretary DENBY. They are just exactly as vital as the men who the guns.

r. KELLEY. Do you think that the mechanism is more delicate the instruments on the battleships?

ptain DAY. Yes, sir; very much.

cretary DENBY. They ought to be a trained personnel.

r. KELLEY. These men who work do not go out with the submarines?

ptain DAY. Yes, sir; they do; they are transferred back and forth.

lmiral COONTZ. Just as I do; somebody relieves me and I go to

r. KELLEY. We will shift them out of this list.

cretary DENBY. I can not see any objection to that.

ptain DAY. No, sir.

r. KELLEY. What have we left?

SURVEY SHIPS.

lmiral COONTZ. The survey ships.

ptain WILLIAMS. The *Hannibal*, 146.

r. KELLEY. How many have you on the *Hannibal* now?

ptain WILLIAMS. One hundred and thirty-seven.

r. KELLEY. What does this ship do?

lmiral COONTZ. It makes surveys on the south coast of Cuba, Honduras, and all along that coast. Those countries down there do survey the waters. The most of the surveys of the earth have been made by the British and ourselves. It is a thing that goes on year to year. We have reduced the surveying boats from three to one. We feel that this nucleus should be kept going if it is at all possible to continue it.

r. KELLEY. This comes under the Hydrographic Office?

lmiral COONTZ. Yes, sir.

r. KELLEY. No other nation makes these surveys?

lmiral COONTZ. Yes, sir; the British make them.

r. KELLEY. In these same localities?

lmiral COONTZ. I think none at present. I believe the British have theirs in different parts of the world. This is on the way to Panama, and it is for that purpose.

r. KELLEY. What else is there left?

FLEET TUGS.

lmiral COONTZ. Twelve fleet tugs. Have you the names?

ptain WILLIAMS. Ten mine sweepers and two tugs.

r. KELLEY. Twelve mine sweepers; are those the ones you mean?

lmiral COONTZ. No, sir; 12 fleet towing vessels.

r. KELLEY. We had put down here 540 for the 10.

ptain LACKEY. Five hundred and twelve for the 2 tugs and 10 sweepers.

r. KELLEY. What are the names of the two tugs?

ptain LACKEY. The *Sonoma* and the *Piscataqua*.

Mr. KELLEY. The next item is the 29 fleet tugs reduced to 23 by transfer of 6 from the fleet tugs to special-service craft. Suppose you give us the names of the 23?

Captain LACKEY. *Allegheny, Bay Spring, Challenge, Chemung, Iroquois, Kalmia, Keosauqua, Kewaydin, Koka, Lykens, Mahopah, Mohave, Patuxent, Patapsco, Piscataqua, Sagamore, Sciota, Sunnadi, Tillamook, Umpqua, Undaunted.*

The above are in naval districts and the *Contocook* and *Sonon* are with fleet.

Mr. KELLEY. That means 884 men required for fleet tugs, as have made the memorandum here; 1,131 was the number you gave yesterday, and we took out 247 for transfers, leaving 884.

Admiral COONTZ. They carry from 39 to 54 men each. I suppose the average would be 45.

Mr. KELLEY. Somebody gave us those figures of 1,131.

Admiral COONTZ. All right, we will stand by them.

MINE SWEEPERS.

Mr. KELLEY. The next are the mine sweepers, there being 10 of them.

Captain WILLIAMS. We have already taken care of the 10 mine sweepers.

Mr. KELLEY. Did you put the names down?

Captain WILLIAMS. No, sir; I did not.

Mr. KELLEY. Suppose you name the 10 mine sweepers.

Captain WILLIAMS. The *Tanager, Curlew, Finch, Lark, Sea Gull, Penguin, Whippoorwill, Chewink*, and the *Mallard*.

Mr. KELLEY. With a complement of 540 men, or 54 apiece?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. We disposed of them awhile ago without giving their names.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Are there any more ships?

SHIPS MANNED FOR BUREAU OF FISHERIES.

Admiral COONTZ. Yes, sir; there are the ships of the Fish Commission, the *Albatross* and the *Fish Hawk*. Under the law we are required to man them, and they require 125 men.

Mr. KELLEY. How many for the *Albatross* and how many for the *Fish Hawk*?

Captain WILLIAMS. Eighty-one for the *Albatross* and 44 for the *Fish Hawk*, making a total of 125.

Mr. KELLEY. How many do they have at the present time?

Captain WILLIAMS. The *Fish Hawk* has 44 and the *Albatross* is out of commission.

Mr. KELLEY. What else have you?

RADIO REPAIR SHIP "GOLD STAR."

Admiral COONTZ. There is the auxiliary radio ship *Gold Star*, with 97 men.

Mr. KELLEY. I think you told about her service for the Alaska Radio Stations.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The *Gold Star* is a radio repair ship, with 97 men.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many men are on her now?

Captain WILLIAMS. Now going in commission.

TARGET REPAIR SHIPS.

Mr. KELLEY. Are there any others?

Admiral COONTZ. There are the two target repair ships noted on page 202, the *Antares* and *Procyn*. They take the place of the *Lebanon* and *Nanshan*, which are old vessels. We got the *Nanshan* in the Spanish-American War, and the *Lebanon* was commissioned in 1885.

Mr. KELLEY. They carry the targets that are shot to pieces?

Admiral COONTZ. Yes, sir; they carry the target outfits; photographic outfits, etc.

Captain WILLIAMS. One hundred and eighty-two men are required or both of them.

Mr. KELLEY. How many are on each one now?

Captain WILLIAMS. On the *Antares* 26 and the *Procyn* 17.

Admiral COONTZ. Let me say that the other two ships are now in full commission, and we will drop the number of men that are carried on the others. If this should be allowed, the full number will be 182 men.

Mr. KELLEY. Ninety-one on each one.

Admiral COONTZ. Yes, sir.

GUNBOATS—U. S. S. "ASHEVILLE."

Mr. KELLEY. Are there any others?

Admiral COONTZ. There is one vessel we have lost, the *Asheville*. That is one we have lost in the shuffle.

Mr. KELLEY. It is included in the gunboats. If you will take your list of gunboats, you will see that you have 769 men for nine gunboats. The *Asheville* appears on that list with 150 men.

Admiral COONTZ. She does not appear on my list.

Mr. KELLEY. I have her here with 148 men. Is that the right complement?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. It has not been put down to-day.

Mr. KELLEY. You want nine little gunboats?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What else have you?

FLAGSHIP COMPLEMENTS.

DIVISION AND DUTIES OF.

Captain WILLIAMS. Flag complements, 1,100 men.

Mr. KELLEY. Tell us about the flag complements of 1,100 men.

Admiral COONTZ. They are used by the commanders in chief of the Atlantic Fleet and Pacific Fleet, the commander of the battleship

forces, Atlantic Fleet; the commander of the control forces; commander of mine squadron 1; the commander of the destroyer, Atlantic; the commander of the train, Atlantic; the commander of the Asiatic Fleet; the commander of the Yangtse Patrol; commander of naval forces operating in European waters; commander of submarine flotillas; commander of special service, etc. Those are men that are carried around with the flag and the men are transferred when the flag is transferred. The charge of the records of the 70,000 men that we have afloat have been in being from time immemorial, and this is the fact that the commander in chief says that they need at the present time.

Mr. KELLEY. They are bookkeepers.

Admiral COONTZ. They are signalmen, radiomen, bookkeepers, everything of that character.

Mr. KELLEY. How many additional men does the flag carry over and above the number it would have if it were not the flag?

Admiral COONTZ. It is increased just exactly by this number.

Mr. KELLEY. Take one ship, and we will suppose that the admiral of a fleet: How many more men would you have if a captain would have?

Admiral COONTZ. If I were the big commander in chief I have 98 additional people altogether.

Mr. KELLEY. You would have that many more than a captain?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Are there 11 ships that require 100 extra men on this account?

Admiral COONTZ. No, sir; the flagship of the commander in chief would carry 98 additional men. Some of them carry as many as 100 additional men. There are about 60 different people that carry these additional people around with them. The commander in chief carries 98, and he is the officer who is commander in chief of the United States Fleet—the officer who must have everything ready and in good condition in case of war. If you can do business as big as ours at sea, you will see that if you are giving your officer who represents you everything in the world, needs, and no more——

Mr. KELLEY (interposing). He has 100 clerks?

Admiral COONTZ. No, sir; he has radiomen, signalmen, and everything of that character.

Captain WILLIAMS. Take the commander in chief of the Atlantic Fleet, as an example. I suppose the largest number of these people would be extra signalmen for the ship. Even the ship has a certain number of signalmen to perform the signals for the ship, but the commander in chief has his own signal which must be manned by special signalmen to transmit signals to the entire fleet. Many of them are special quartermasters who stand watch with the staff, and keep track not only of the movement of the ship itself but of the manner in which the evolutions are performed.

Mr. KELLEY. Do they not have regular officers and men on the ship? As I understand it, these men are over and above the number needed to run the ship.

Captain WILLIAMS. They are over and above the number needed to run the ships.

ELLEY. I thought you were saying something about people being run the ship.

in WILLIAMS. I said in addition to them.

ELLEY. Very well, go ahead.

in WILLIAMS. There are special clerks or yeomen, as we call them, to look after the correspondence and care for the paper work on the flagship, as distinguished from the ordinary paper work which is incident to the ordinary ship.

ELLEY. How many captains are on a flagship?

in WILLIAMS. Sometimes two and sometimes more.

ELLEY. There is an admiral?

in WILLIAMS. Yes, sir; there is a captain of the ship and the admiral's staff.

ELLEY. How many extra commanders does it take?

in WILLIAMS. There may be several.

ELLEY. How many extra lieutenant commanders?

in WILLIAMS. There will be the admiral's entire staff.

ELLEY. I realize that it is quite a job to run a whole fleet, 100 men is a large number.

in WILLIAMS. When you carry that through the flagship of the division, the flagship of the squadron, the flagship of the force, you see that it requires 1,100 men. The additional personnel required for the commander in chief of the North Atlantic Fleet is probably the maximum. Next to that would come the commander in chief of the Pacific Fleet, and each division commander would have a certain number of extra men. When he moves the ship when he takes his station on another ship, he carries those with him, and the duties are then continuous instead of being interrupted.

Mr. COONTZ. I do not think the number is excessive. The question is what we depend on must be given the proper number of men to do everything right.

in WILLIAMS. This is the price we pay for coordination between ships, as distinguished from one ship operating by itself. When we have fleets, we must pay this much in personnel to make the fleet efficient.

ELLEY. Let us take a battleship fleet, or a battleship division: how many ships are there in a battleship division?

Mr. COONTZ. Four.

ELLEY. Is there an admiral in charge of those four ships?

Mr. COONTZ. Yes, sir.

ELLEY. If there is a division of destroyers along, who is in charge of that?

Mr. COONTZ. There would be a division commander or a group commander.

ELLEY. Would he be an admiral?

Mr. COONTZ. No, sir; a captain. That would be in addition to his other duties.

in WILLIAMS. He would require a few additional men.

ELLEY. But he would not require many?

in WILLIAMS. Not many, but some.

ELLEY. The battleship division flagship would do practically all the bookkeeping for everybody connected with the division, and the other ships would do the things that went with it?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many officers will there be who will require 100 extra men, as the fleet is organized now?

Admiral COONTZ. There would be not over two.

Mr. KELLEY. One for each ocean?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is the next largest number that a flag officer would require?

Admiral COONTZ. The number shades down to 62.

Mr. KELLEY. What is the next highest?

Admiral COONTZ. The commander in chief of the battleship forces of the Atlantic Fleet.

Mr. KELLEY. What does he have under him?

Admiral COONTZ. He has charge of six battleships that are on the Atlantic, of the scouting forces, and everything else. He has under him all of the submarines, air forces, etc.

COMMANDER IN CHIEF OF ATLANTIC FLEET.

Mr. KELLEY. Let us start at the top. You will have to have a commander of the Atlantic Fleet?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Or a commander in chief, and he has to have about 100 extra men.

Admiral COONTZ. Ninety-eight.

Mr. KELLEY. Who would be the next officer?

Admiral COONTZ. The commander of the battleship forces of the Atlantic Fleet.

Mr. KELLEY. The commander in chief has charge of all the ships in the Atlantic, whether they are together, or not?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Now, how many extra men does the commander of the Atlantic battleship forces have?

Admiral COONTZ. Sixty-two.

Mr. KELLEY. Who is under him that has to have a flag?

Admiral COONTZ. He will have the admirals of the two divisions.

Mr. KELLEY. You have six battleships in the Atlantic?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They are divided into two divisions of three each?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And an admiral is in charge of those three battleships, with the auxiliaries that go with them?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is he called?

DIVISION COMMANDER.

Admiral COONTZ. The division commander.

Mr. KELLEY. How many extra men does the division commander have?

Admiral COONTZ. The division commander has altogether 41.

Mr. KELLEY. Do you mean that each division commander has 41, or the two together?

Admiral COONTZ. Each one.

Mr. KELLEY. That would make 82 for the two divisions in the Atlantic.

The CHAIRMAN. He said one had 62 and the other 41.

Admiral COONTZ. One has 62 and the other 41.

Mr. KELLEY. What causes that division? Are there more destroyers in one division than in the other?

Admiral COONTZ. There is a division in the number of the forces. here is more than one division.

Mr. KELLEY. You have two divisions?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If one of them gets 41 assistants, why should the other get 62?

Admiral COONTZ. The senior commander of the whole business has 2 men. He is in command of a division and the other officer commands a division. The latter has 41 men.

Mr. KELLEY. Is there anybody under the division commander that as a flag?

Admiral COONTZ. There are various destroyer squadrons.

Mr. KELLEY. Let us have them.

Admiral COONTZ. Mine squadron No. 1—

COMMANDER OF MINE SQUADRONS.

Mr. KELLEY (interposing). We will not have any mine squadrons.

Admiral COONTZ. The mine squadron commander has some of these people.

Mr. KELLEY. How many do you have in the Atlantic?

Admiral COONTZ. One. The commander of the various destroyer squadrons in the Atlantic—

Mr. KELLEY (interposing). How many are there? You have only a division of destroyers in the Atlantic, have you not?

Admiral COONTZ. There are nine squadrons now in the Atlantic.

Mr. KELLEY. You have nine squadrons with 19 ships? We are king about next year now.

Admiral COONTZ. There are 19 now, we will say.

Mr. KELLEY. How many squadrons would that number make?

Admiral COONTZ. We have in commission now 278.

Mr. KELLEY. We are talking about next year. As I understand it, we will have only one division in the Atlantic, and you will have two in the Pacific. You have one destroyer squadron in the Atlantic?

Admiral COONTZ. We would have one on the Atlantic coast.

Mr. KELLEY. You operate them in nines, do you not?

Admiral COONTZ. There are three divisions of six each and a leader a squadron.

Mr. KELLEY. The leader is the one that carries the flag?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. How many extra men does that officer carry?

Admiral COONTZ. The commander of a squadron carries 14.

Mr. KELLEY. Do you mean the commander of a division?

Admiral COONTZ. No, sir; the commander of a squadron.

Mr. KELLEY. I understood you to say that you have three squadrons of six each—

Admiral COONTZ (interposing). No, sir; three divisions of six each make a squadron.

Mr. KELLEY. I do not know what is the technical language, but heretofore we have been speaking of a division as consisting of 18 ships, or 18 ships and a leader. As I understand it the 18 ships are divided up into three squadrons of 6 each.

Admiral COONTZ. No, sir; a squadron is composed of 19 ships and a division is composed of 6.

Mr. KELLEY. Then we will use the term squadron when we speak of 19 ships. As I understand, the officer at the head of a destroyer squadron has 14 men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Does anybody under him have a flag?

Admiral COONTZ. No, sir.

COMMANDER OF CONTROL FORCES OF THE ATLANTIC FLEET.

Mr. KELLEY. That covers all the fleet in the Atlantic?

Admiral COONTZ. No, sir. We now come to the control force of the Atlantic Fleet.

Mr. KELLEY. What do you mean by that?

Admiral COONTZ. The commander of the control force of the Atlantic Fleet has charge of every ship along the coast that is out of commission or in part commission that is assigned to him for duty, as, for instance, in the line of the operations being carried on at Guantanamo.

Mr. KELLEY. I thought the district commander had charge of that.

Admiral COONTZ. No, sir; he does not have charge of ships in that.

Mr. KELLEY. What does he have to do with ships?

Admiral COONTZ. All that he would have to do would be in connection with the small craft, of which we have very few in number.

Mr. KELLEY. Why not let him handle the whole business, and stop multiplying these divisions?

Admiral COONTZ. The first difficulty about that would be the objection to his having a ship to go around in, and the second would be mileage.

Mr. KELLEY. He would have plenty of ships to go around with.

Admiral COONTZ. We have practically cut that down to nothing.

Mr. KELLEY. He would not require more than one.

Admiral COONTZ. We have been taking all of them away from them.

Mr. KELLEY. You have a commander for that portion of the fleet which is not in the navy yards?

Admiral COONTZ. A part of it is not in the navy yards.

Mr. KELLEY. What do you call that service?

Admiral COONTZ. The control forces.

Mr. KELLEY. Is there more than one in the Atlantic?

Admiral COONTZ. No, sir.

Mr. KELLEY. How many men does he have?

Admiral COONTZ. Fifty-seven men.

Mr. KELLEY. Those ships are laid up, are they not?

Admiral COONTZ. A part of them are laid up.

Mr. KELLEY. They are mostly at the Philadelphia Navy Yard!

Admiral COONTZ. No, sir; they are scattered all the way along from Boston to Key West and New Orleans.

Mr. KELLEY. Where is this man's headquarters?

Admiral COONTZ. That man's headquarters is on board ship. At present he is on board the *Florida*. He is now engaged in mining operations at the Virgin Islands.

Mr. KELLEY. The *Florida* is not one of the ships in the Regular Navy squadron?

Admiral COONTZ. No, sir; but she will be, because she is one of the battleships we must keep.

Mr. KELLEY. You could not consolidate the control forces with the district headquarters?

Admiral COONTZ. No, sir; this is an absolute necessity.

Mr. KELLEY. How many districts do you have on the Atlantic coast?

Admiral COONTZ. Seven.

Mr. KELLEY. It seems to me that you could divide them up and go away with this service.

Admiral COONTZ. No, sir; we could not.

COMMANDER OF DESTROYER SQUADRON, ATLANTIC FLEET.

Mr. KELLEY. What else do you have?

Admiral COONTZ. We have the commander of the destroyer squadron of the Atlantic Fleet.

Mr. KELLEY. You will not need that next year?

Admiral COONTZ. Yes, sir; we will need him next year. He will have apparently nothing to watch but the 19 ships, but we will have to put those ships out of commission in Charleston, and there is a lumber at Philadelphia that he will have to look after.

Mr. KELLEY. He is the officer who has supervision of the laying up of the 157 ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. He would have to take off all the supplies and see that they were properly laid up?

Admiral COONTZ. Yes, sir; and it is a big job.

Mr. KELLEY. You will probably have that done before the 1st of July.

Admiral COONTZ. We hope to finish laying them up by the 15th of July.

Mr. KELLEY. Then, you would not need him next year?

Admiral COONTZ. We will probably need him with the scouting organization, and the scout cruisers are coming in.

Mr. KELLEY. How many extra helpers does he have?

Admiral COONTZ. He has 41.

Mr. KELLEY. When those ships are laid up, you surely would not need to have that officer?

Admiral COONTZ. Unquestionably we will. If we laid up the destroyers, this could be revised downward.

Mr. KELLEY. When you have only 19 in the Atlantic, and that is all you plan to keep in commission—

Admiral COONTZ (interposing). And 23 in reserve, making 42.

Mr. KELLEY. That would not be a job on which to employ 41 men. I think we could cut that out entirely.

Admiral COONTZ. No, sir; you could not cut it out entirely cause, no matter how small the number is, we have got to have men with him.

Mr. KELLEY. How many did you say?

Admiral COONTZ. Forty-one.

COMMANDER OF THE TRAIN, ATLANTIC FLEET.

Mr. KELLEY. Who else have you on the Atlantic?

Admiral COONTZ. We have the commander of the train, Atlantic Fleet, who has charge of all the supply vessels, the handling of oilers, cargo vessels, and everything else connected with the train.

Mr. KELLEY. Why are not all those with the regular fleet? duplicate so much? They are right in with the fleet, are they?

Admiral COONTZ. They are sometimes with one part of the fleet and sometimes with another part of the fleet.

Mr. KELLEY. They are just like all the vessels, they are detached for one thing or another?

Admiral COONTZ. No; this man has charge of millions of dollars worth of things.

Mr. KELLEY. Why should he not be on this 98 list? It seems to me you are breaking these up and getting your overhead scattered. Of course I am not an operator of ships, and, you understand, I am only inquiring. How many men would he have?

Admiral COONTZ. We would have 35 men.

Mr. KELLEY. You call him——

Admiral COONTZ. The commander of the train.

Mr. KELLEY. That is, the supply ships?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. In the Atlantic?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Who else?

COMMANDER OF SPECIAL-SERVICE SQUADRON.

Admiral COONTZ. We have the commander of the special-service squadron which operates in Central America and the Caribbean which we went over yesterday. He has 10 men.

Mr. KELLEY. Who else?

Admiral COONTZ. The commander of the submarine flotillas of the Atlantic Fleet.

Mr. KELLEY. They are only a small part; they are right in with the fleet, and there are 40 of them on both oceans. How many?

Admiral COONTZ. Twelve.

Mr. KELLEY. Who else?

Admiral COONTZ. That is all on the Atlantic, sir.

Secretary DENBY. But there is the aircraft.

Mr. KELLEY. You do not need any special officer for the aircraft, do you?

Admiral COONTZ. He has nothing at the present time.

Mr. KELLEY. That makes 438.

Admiral COONTZ. Of course, if you double that and add the commander in chief of the Asiatic, the commander of the Yankee patrol, and the commander of the forces operating in Europe.

ters and Turkish waters, you will see where we get the 1,100. However, I will say that with the reduction in the destroyer squadron, which we are going to make, we could reduce that by 200 people.

Mr. KELLEY. Making 900 altogether.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Did you furnish the Committee on Naval Affairs with the details as to just what kind of service these men performed.

Captain WILLIAMS. No, sir.

MUSICIANS AND BANDS.

Mr. KELLEY. How many musicians would there be on this list? Captain WILLIAMS. I can give it to you complete for the record.

Mr. KELLEY. Can you give me a little idea?

Captain WILLIAMS. There is a band on almost every one of these battleships and the flagships have a band.

Mr. KELLEY. An extra band?

Captain WILLIAMS. No; a band.

Mr. KELLEY. They would have a band anyway.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Have you a band on every ship?

Captain WILLIAMS. A band on every battleship.

Mr. KELLEY. Then there would be no extra men carried for the bands.

Captain WILLIAMS. There would be an increase in the size of the bands.

Commander LEAHY. The commander in chief—

Mr. KELLEY (interposing). If you know about this, let us take the first number of 98.

Commander LEAHY. Of that 98 I can tell you that a band consists of 9 pieces.

Mr. KELLEY. Extra?

Commander LEAHY. For the commander in chief.

Mr. KELLEY. Go on.

Commander LEAHY. And the rest of that 98 is made up in boatswains.

Mr. KELLEY. Let us have the number.

Commander LEAHY. I can not give you the number; I would have to get that from the records.

Mr. KELLEY. How many mess attendants?

Commander LEAHY. There will be three messmen branch for the commander in chief, one for his chief of staff, and one for each three officers who are members of his staff.

Mr. KELLEY. And how many of them would there be?

Commander LEAHY. Probably 6 officers. I understand there are on the *New Mexico*, and then there would be an allowance of 6 for the 20 officers.

Mr. KELLEY. That would be 10 in all of messmen branch.

Commander LEAHY. Yes, sir.

Mr. KELLEY. How many for other ordinary services?

Commander LEAHY. None.

FLAGSHIP SIGNAL FORCE.

Mr. KELLEY. How else is this made up?

Commander LEAHY. The flag signal force consists of 22 signal boys.

Mr. KELLEY. That is in addition to the regular number on the ship?

Commander LEAHY. This is the commander in chief's detail.

Mr. KELLEY. How many signal boys are there on a battleship ordinarily?

Commander LEAHY. On a ship other than a flagship there are 12.

Mr. KELLEY. And this would make 28 on a flagship?

Commander LEAHY. No; a flagship does not get that many.

Mr. KELLEY. We are talking about the extra men. How many extra?

Commander LEAHY. I can not give you any exact figures. I am giving you the make-up of that 98 as near as I can.

Mr. KELLEY. You say it is 16?

Commander LEAHY. Yes, sir.

Mr. KELLEY. Go ahead.

Commander LEAHY. Five signal quartermasters.

Mr. KELLEY. What are they?

Commander LEAHY. The men in charge of the signal watches; in other words, the supervisors of the signal boys on watch; there will be four signal boys on watch at a time.

Mr. KELLEY. And one boy to watch over them.

Commander LEAHY. A quartermaster in charge.

Mr. KELLEY. Why do you call him a quartermaster?

Commander LEAHY. His name has been changed within the last six months to signalman, and the boys are called seamen signalmen.

Mr. KELLEY. What else?

FLAGSHIP RADIO DETAIL.

Commander LEAHY. Then he has a detail of radio men for his flag battle station.

Mr. KELLEY. How many of those?

Commander LEAHY. I think there are eight.

Mr. KELLEY. Extra radio men?

Commander LEAHY. Those are for the extra stations of the flag officer on the bridge.

Mr. KELLEY. Go ahead.

FLAGSHIP BARGE AND BARGE CREW.

Commander LEAHY. Then he has a barge. There are four barges, and 16 in the boat crews.

Mr. KELLEY. There are four barges and 16 men altogether?

Commander LEAHY. Yes, sir.

Mr. KELLEY. That is used for going around among the different ships?

Commander LEAHY. Yes, sir; for the use also of his staff.

Mr. KELLEY. Go ahead.

FLAGSHIP YEOMEN.

Commander LEAHY. The yeomen come next.

Mr. KELLEY. They are the clerks?

Commander LEAHY. Yes, sir.

Mr. KELLEY. How many of those?

Commander LEAHY. I can not tell you how many offhand.

Captain WILLIAMS. Captain Day, how many did you have on the *Pennsylvania*?

Captain DAY. I should guess 30.

Commander LEAHY. How many did you have in the printing ice?

Captain DAY. Four.

Mr. KELLEY. What else?

Commander LEAHY. I think you have them all if you will add 'em up.

Mr. KELLEY. That makes 104.

Commander LEAHY. I think the mess attendants and yeomen are little too high. This has been from memory, but I can give it to you officially. I think the yeomen business is also too high.

Mr. KELLEY. You have reduced this to 900, have you, Admiral?

ATLANTIC FLEET AIR SQUADRON.

Admiral COONTZ. Yes, sir. I have just one more thing which we omitted, mine sweepers on special duty. These are for training the squadrons in the Atlantic.

Mr. KELLEY. Where do you get those boats?

Admiral COONTZ. You do not find them on the list; they have been left out. I could not find them on the list.

Mr. KELLEY. Here are three at air stations and six at naval stations. Are they a part of them?

Admiral COONTZ. No.

Mr. KELLEY. Let us take the three at air stations.

Admiral COONTZ. They are the *Sandpiper*, *Teal*, and *Gannet*.

Mr. KELLEY. There are three at air stations and six at naval stations. I think you have covered them all.

Captain WILLIAMS. There are 26, all told, sir.

Mr. KELLEY. Who can tell us how you arrive at your number of 100?

SCOUTING SQUADRON—NUMBER OF MEN AND DUTIES OF.

Commander LEAHY. This is the organization of the Atlantic Fleet's squadrons. The first group is the scouting squadron.

Mr. KELLEY. That sounds formidable.

Commander LEAHY. That consists of 105 men.

Mr. KELLEY. You want 1,100 men who are not connected with the airplane carrier or airplane tenders?

Commander LEAHY. Yes, sir.

Mr. KELLEY. They are the men to fly the machines?

Commander LEAHY. Yes, sir.

Mr. KELLEY. And act as the pilots of the machines?

Commander LEAHY. Pilots and the upkeep.

Mr. KELLEY. Upkeep?

Commander LEAHY. Yes, sir.

Mr. KELLEY. What do you mean by upkeep?

Commander LEAHY. I mean the overhauling of the engines, the airing of them, etc.

Mr. KELLEY. That is done on the battleships, is it?

Commander LEAHY. It is done either on shore, where these people are basing, or it is done alongside one of the tenders.

Mr. KELLEY. You have a lot of men on each one of those tenders to do that.

Commander LEAHY. We have a lot of men on them, but they run the ships.

Mr. KELLEY. A lot besides. Quite a number of men were added, and now you are putting them in here again.

Commander LEAHY. I think there was a mistake in that. Those allowances are made for the actual number of men necessary to run the ships, and not the small details connected with the operation of the machines.

Mr. KELLEY. It is not a very small detail when you put on 100 extra men.

Captain WILLIAMS. One of them carries 339 men and that is not an excessive number.

Mr. KELLEY. Just for running the ship?

Captain WILLIAMS. No, sir.

Mr. KELLEY. How large a ship is the *Langley*?

Commander HILL. Nineteen thousand three hundred and sixty tons.

Captain WILLIAMS. This is an attempt to develop a mobile aviation force, the 1,100 people.

Mr. KELLEY. If you have these on the ships you will not need them on shore where you have these others.

Captain WILLIAMS. If you could get them all to sea you would not need these, but this is a force of aviators that has been organized to go out to sea.

Mr. KELLEY. I approve of it thoroughly. If you can fly these ships off the decks of your battleships, that is fine, but if you take 1,100 that you have been using at shore stations and put them on the ships, why do you have to make a special item of 1,100 here?

Captain WILLIAMS. We want to build up an aviation force.

Commander LEAHY. This scouting squadron is——

Mr. KELLEY (interposing). Let me ask you this first: How many men are now in aviation?

Captain WILLIAMS. In addition to those, we have 2,500 and they are asking for more.

Mr. KELLEY. There are 2,500 now on shore.

Captain WILLIAMS. Two thousand five hundred now; yes.

Mr. KELLEY. Flyers and others?

Captain WILLIAMS. Yes.

Mr. KELLEY. You are now asking for the same number on shore and 1,100 more for the fleet.

Captain WILLIAMS. That is what we have at the present time.

Mr. KELLEY. You do not have them now, do you?

Captain WILLIAMS. Yes.

Mr. KELLEY. Have you 1,100 with the fleet now?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What ships are they on?

Commander LEAHY. I did not say they were on the ships, sir.

Mr. KELLEY. Well, Captain Williams says they are on the ships. Let us have the disposition of the men who are in this item by ships.

Commander LEAHY. In the fleet air detachment there are 632.

Mr. KELLEY. How many on the *Florida*?

Commander LEAHY. I have not that, sir. I have the total number.

Mr. KELLEY. You must know where they are or you would not have the total.

Commander LEAHY. I do not have it here, but I have it at the Navy Department.

Mr. KELLEY. How many are there?

Commander LEAHY. Six hundred and thirty-two.

Mr. KELLEY. At the present time?

Commander LEAHY. Yes, sir.

Mr. KELLEY. And you want to double it?

Commander LEAHY. The estimate asked for, which has been gone over and drawn up here, amounts to 1,100 men.

Mr. KELLEY. If you want to put 1,100 on the ships, why can you not take 500 from shore and put them on the ships?

Commander LEAHY. That is out of my province.

Mr. KELLEY. Why increase the number?

Commander LEAHY. That is for the Secretary and the General Board to decide.

Captain WILLIAMS. I think the question of how many aviators we want or what your policy in aviation is going to be is a question of policy for the department. They have asked not only for this 1,100 detachment, but for more.

Mr. KELLEY. One of the finest things in the world is the ability to shift. I think the policy is a good one, to transfer, as far as you can, aviators from the shore to the ships, because that is what naval aviation should be, but it does not mean that you should build up a great shore establishment and then build up a great sea establishment simultaneously, but you should change from one to the other.

Secretary DENBY. A number of people think we can do without airships at all.

Mr. KELLEY. I am not one of that number; I think they are very valuable.

Secretary DENBY. I am not, either; and I think the number of airships—

Mr. KELLEY (interposing). I think it is a fine thing to have these airships on the battleships.

Secretary DENBY. But you can not leave the shore absolutely unprotected by airplanes.

Mr. KELLEY. If you have these 2,500 men training on shore and getting ready, why can you not, as soon as you get them trained, transfer them to the ships without increasing your establishment?

Secretary DENBY. You see, the ships are being gotten ready, and do not know exactly what the situation is.

Mr. KELLEY. Who does know?

Admiral COONTZ. Captain Moffett can tell you in 10 minutes.

Secretary DENBY. I am trying to answer in a clumsy way why we need an increased number. They are putting catapults on the ships, so that we can launch aircraft from them, and when they are ready the force must be increased. Everybody approves of the policy of using these airships on battleships as soon as they can be launched from the battleships and return.

Mr. KELLEY. Do you not think you could arrange to transfer those from the shore to the ships without increasing the number.

Secretary DENBY. You can obliterate the shore stations if you like, but then you would leave the shore absolutely unprotected.

Mr. KELLEY. I think that probably the protection of the shore is not so vital. This is a sea proposition, is it not?

Secretary DENBY. Not entirely. Every squadron that went out of New York Harbor during the war went out with airplanes all around it.

Mr. KELLEY. We have so many different departments guarding the shore that I had supposed this was a fleet proposition.

Captain WILLIAMS. It is a fleet proposition.

Secretary DENBY. It is not entirely a fleet proposition.

Captain WILLIAMS. You can not pick up so many airplanes and put them on your ships until you get the machines developed and everything ready to receive them. For a while during the summer they were with the North Atlantic Fleet and they developed certain things.

Mr. KELLEY. Your idea is to train the men to fly, of course, at the training stations on shore.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And then put them in the fleet?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You do not intend to build up a great protection base ashore, do you?

Captain WILLIAMS. That is a different question.

Mr. KELLEY. I say, that is not your plan?

Captain WILLIAMS. That is not what we are asking for.

Mr. KELLEY. What you want is enough men to train, first, on shore, and then put them into the fleet.

Captain WILLIAMS. That is what we are talking about.

Mr. KELLEY. And I ask you why you want 1,100 additional for this year, since you are not going to pile them up on shore.

Captain WILLIAMS. Mr. Kelley, we are asking for 1,100 men on this seagoing list, and we expect to fit out the *Langley*, and, perhaps, some flying detachments on other ships, if that is the development that takes place. We started on this thing, and we have six hundred and odd, I think, working on this business now, and we are putting them at sea as fast as developments make it possible. This is an aviation problem and a problem of the future policy of the use of airplanes at sea. This 1,100 is the detachment we hope to be able to use in the seagoing aviation proposition this coming fiscal year. At the present time this thing has got to be more or less supported; that is to say, it has to have not only its specialists but other people to go with it.

I think some of them are operating from Key West across to Guantanamo; at another time they went down on the ships to Guantanamo and flew off the beach there, because, I believe, they are not ready to fly off the ships yet; that is the important question in connection with this aviation problem, and these men are the men who are becoming aviators and will be ready when this development takes place.

Mr. KELLEY. Then if we take it up with Admiral Moffett, to see whether the ships are ready, we can get at it exactly.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Have you any more ships to take up?
Admiral COONTZ. No, sir.

ALLOCATION BASED ON 50,000 MEN AFLOAT AND 15,000 MEN ASHORE.

Mr. KELLEY. Now, Admiral, this is what I would like to have you and the Secretary do: I would like to have you take this list of ships that you have asked to have kept in commission and assume that we are going to give you 50,000 men for the fleet and 15,000 men for the shore, and assign to these 18 battleships such proportion of them as you believe they ought to have.

Secretary DENBY. Wait a minute; that is not possible.

Mr. KELLEY. Just a minute; and put 103 destroyers in full commission and 84 submarines in full commission. I want the list to contain those ships, 18 battleships, 103 destroyers, and 84 submarines, with the necessary tenders and other auxiliaries, oilers and tankers, to go with those, and then assign what you have left, as far as they will go, to the other ships on this list, striking off the list each as you feel you could not keep in commission with that number of men.

Admiral COONTZ. Yes, sir. What would be your advice as to the Panama station and the European station?

Mr. KELLEY. I will leave it entirely to the discretion of the department. The Congress, I feel quite sure, would want you to keep in commission the 18 battleships, at least 103 destroyers, we will say, and 84 submarines, and the necessary other things to go with those, and then if there was to be a shortage anywhere, we would want it to come below that point. We would like to have you make a statement for the record with those ships in and the others out, to whatever extent is necessary to man these ships that are fighting ships.

Secretary DENBY. That is, 50,000 afloat and 15,000 men ashore.

Mr. KELLEY. Yes. So we will be sure about it, we want the list to include the names of the ships and the number of men upon each and every ship of each grade right straight down, showing just where you would use the 50,000 men.

Secretary DENBY. You do not mean the number of men in each grade.

Mr. KELLEY. No. Take 50,000 men and apply them to the battleships, the destroyers, and the submarines as far as you think they ought to go, and then if you have to strike out anything, strike out the things below which are of least consequence to you, but not going beyond the 50,000 men with the fleet.

Secretary DENBY. Are we to consider the men traveling to and from and the men who are not in the service and not available as in the 50,000? As you know, there is always a number of men who are not available for one reason or other, being sick or absent from duty for one reason or another.

Mr. MADDEN. Do you mean replacements?

Secretary DENBY. No; sick men, men in desertion, men who are in liberty, and all that sort of thing. You can not keep the men of the crews going all the time every day of the year, and you must make an allowance for a number of men who are not available, and we would like to have some figure at which you would want to place men of that character.

Mr. KELLEY. If you have 50,000 men available——

Secretary DENBY (interposing). If you want us to say what we will do with them in the Navy that is a different proposition.

Mr. KELLEY. I have suggested 50,000 men for the fleet and 15,000 men for the shore as the sum total to keep in commission the number of vessels I have mentioned, and I have suggested that if there is a shortage you strike out from the bottom and see what your judgment would be.

Secretary DENBY. In other words, you are just taking 65,000 men for the Navy over all and you ask us to see what we can do with them.

Mr. KELLEY. I did not quite say that.

Secretary DENBY. I mean make the best use of them.

Mr. KELLEY. I said to keep in commission 18 battleships, 103 destroyers, and 84 submarines, and then below that strike out until you get enough out, if you have to take any out, to get down to 50,000 men.

Secretary DENBY. I do not imagine that number of men, 65,000 constitutes the number available for service, because, as I have said there is always a great number not available because of sickness, desertion, and other reasons.

Mr. MADDEN. But it would not be impossible to make an allocation of the 50,000 men.

Secretary DENBY. No; but it is impossible to use 50,000 men if 50,000 men are all you have for the complements of the ships. It is impossible, and you can not do it.

MONDAY, MARCH 13, 1922.

Mr. KELLEY. We have with us this morning again the Secretary of the Navy, Mr. Denby; the Assistant Secretary, Colonel Roosevelt; Admiral Coontz, Captain Williams, and other assistants.

I think we had pretty well finished the subject of the number of men afloat when you were here last Friday, and at the end I asked the Secretary to allocate 50,000 men afloat to the ships of the Navy, including in that list 18 battleships, 103 destroyers, 84 submarines, and the necessary auxiliary craft to make those effective fighting units, and then to supplement that with such other ships as could be kept in commission with the balance.

Secretary DENBY. While leaving 7 per cent for replacements. have that list. Do you want it by ships or classifications?

Mr. KELLEY. I am very much indebted to you, Mr. Secretary. for this list. I hope that I did not make too much bother over Sunday for the officers.

Secretary DENBY. You can not make too much trouble for us.

Admiral COONTZ. We are glad to have done it, even if we worked until 10 o'clock last night.

Secretary DENBY. I should like to read into the record the vessels which have been stricken from the list.

Mr. KELLEY. I see by this list you have furnished that you have given a résumé, as well as the details, ship by ship.

Secretary DENBY. We have given the details ship by ship and the replacements are also given.

KELLEY. At this point, I think, it would be well to put into the record, Mr. Secretary, this complete table just as you have furnished it. Mr. Secretary DENBY. I think it would be well if I inserted in the record at this point a statement later to be prepared.

KELLEY. Whichever appears to be the best place for it to appear in the record.

Mr. Secretary DENBY. I can send you down a statement to-day.

KELLEY. Very well. Please put into the record at this point a summary and also the details immediately following.

Mr. Secretary DENBY. Yes, sir.

on of 50,000 men afloat to ships of the Navy (including 18 battleships, 103 destroyers, and 84 submarines, with full complement and auxiliary craft), balance of men to be distributed to such other ships required so far as possible.

SUMMARY.

	Personnel.	7 per cent replacements.
ships, first line (95 per cent complement).....	21,221	1,485
second line.....	1,805	126
destroyers, first line.....	1,257	88
carrier, second line.....	339	24
destroyer, second line.....	356	25
destroyers, first line (90 per cent complement).....	10,506	735
mine layers.....	760	54
mines, first line.....	2,579	181
minesweepers (station ships).....	292	20
minesweepers.....	2,759	194
minesweepers.....	1,882	132
tender.....	286	20
ship.....	430	30
ship.....	268	19
ship.....	492	34
ship.....	763	53
station ships.....	354	25
ships.....	833	58
ship.....	361	25
mining vessels (2 tugs, 7 mine sweepers).....	408	29
miners (1 aircraft tender).....	258	18
pair vessel.....	91	6
elements.....	600	42
tion.....	1,100	77
al.....	50,000	3,500
ships, first line:		
are, Atlantic Fleet.....	1,116	78
Dakota, Atlantic Fleet.....	1,116	78
la, Atlantic Fleet.....	1,116	78
European waters (flag).....	1,116	78
ning, Atlantic Fleet.....	1,225	86
sses, Atlantic Fleet.....	1,225	86
York, Pacific Fleet.....	1,243	87
Pacific Fleet.....	1,243	87
la, Pacific Fleet.....	1,127	79
oma, Pacific Fleet.....	1,127	79
sylvania, Pacific Fleet.....	1,176	82
na, Pacific Fleet.....	1,170	82
Mexico, Pacific Fleet.....	1,208	85
ssippi, Pacific Fleet.....	1,170	82
Pacific Fleet.....	1,170	82
sses, Pacific Fleet.....	1,203	84
ma, Pacific Fleet.....	1,203	84
and, assigned Pacific Fleet; now flag, Cincinnati, Atlantic.....	1,204	84
se by Colorado, West Virginia, or Washington, ½ year.....	63	4
ts, second line:		
loaned to State of New York, training Naval Militia.....		
nticut, to be replaced by armored cruiser Seattle if treaty is signed.....		
ers, first line: None. Two to be converted to aircraft carriers.....		
second line:		
ster, Atlantic Fleet, destroyers (flag), at Charleston, S. C.....	544	38
Atlantic Fleet (flagship).....		
navy yard, Puget Sound, out commission (Seattle to replace Connecticut if treaty is signed).....	612	43
to replace Utah in European waters later.....		
ston, Pacific Fleet, destroyer flagship.....	649	45

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 18 destroyers, and 84 submarines, with full complement and auxiliary craft), balance to be distributed to such other ships required so far as possible—Continued.

SUMMARY—Continued.

		Pers ne
3 light cruisers, first line:		
Omaha, commission when completed, May 31, 1922.....		
Two others when completed.....		
5 light cruisers, second line:		
Birmingham, special service squadron.....		
Denver, special service squadron.....		
Galveston, special service squadron.....		
Tacoma, special service squadron.....		
Cleveland, special service squadron.....		
1 aircraft carrier, second line:		
Langley (ex-Jupiter), being converted, navy yard, Norfolk; date completion, May 1, 1922: will be commissioned about Apr. 1, 1922.....		
3 mine layers, second line:		
Baltimore, Pacific Fleet, mine squad; 2 at Pearl Harbor to go out of commission when relieved by Aroostook.....		
Aroostook, Pacific Fleet, aircraft tender, goes to mine force when relieved by Langley.....		
Shawmut, Atlantic Fleet, mine squadron.....		
126 destroyers, first line:		
Distribution of 90 per cent complement destroyers—		
With Atlantic Fleet.....	19	
With Pacific Fleet.....	57	
With Asiatic Fleet.....	19	
In European waters.....	8	
Total.....	103	10.
Distribution of 50 per cent complement destroyers—		
At Charleston.....	23	
Destroyers, second line: None.		
10 light mine layers:		
Murray, Atlantic Mine Squadron.....		
Israel, Atlantic Mine Squadron.....		
Maury, Atlantic Mine Squadron.....		
Mahan, Atlantic Mine Squadron.....		
Hart, Asiatic Mine Squadron.....		
Ingraham, Pacific Mine Squadron.....		
Ludlow, Pacific Mine Squadron.....		
Burns, Pacific Mine Squadron.....		
Anthony, Pacific Mine Squadron.....		
Rizal, Asiatic Mine Squadron.....		
84 submarines, first line:		
16 O's.....		
27 R's.....		
38 S's.....		1
3 T's.....		
27 submarines, second line:		
4 I's.....		
8 K's.....		
3 L's.....		
3 N's.....		
35 patrol vessels:		
Eagle 6, at Pearl Harbor, engaged in antisubmarine tactics.....		
Eagle 7, at Pearl Harbor, engaged in antisubmarine tactics.....		
Eagle 8, at Pearl Harbor, engaged in antisubmarine tactics.....		
Eagle 9, fifth naval district, training reservists.....		
Eagle 11, duty with submarines at San Pedro (personnel shown under shore estab- lishment).....		
Eagle 12, training reservists, eleventh naval district.....		
Eagle 13, training reservists, third naval district.....		
Eagle 14, duty with submarines at Pearl Harbor (personnel shown under shore establishment).....		
Eagle 15, training reservists, third naval district.....		
Eagle 17, duty with submarines, Hampton Roads (personnel shown under shore establishment).....		
Eagle 19, training reservists, first naval district.....		
Eagle 21, on duty, Quantico, freight and passengers to Washington.....		
Eagle 26, training reservists, third naval district.....		
Eagle 27, training reservists, third naval district.....		
Eagle 29, training reservists, first naval district.....		
Eagle 31, duty submarines at Coco Solo (personnel shown under shore estab- lishment).....		
Eagle 33, duty submarines, New London (personnel shown under shore estab- lishment).....		

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 103 destroyers, and 84 submarines, with full complement and auxiliary craft), balance of men to be distributed to such other ships required so far as possible—Continued.

SUMMARY—Continued.

	Person- nel.	7 per cent replace- ments.
15 patrol vessels—Continued.		
Eagle 34, training reservists, eleventh naval district.....		
Eagle 35, training reservists, twelfth naval district.....		
Eagle 36, training reservists, eighth naval district.....		
Eagle 38, training reservists, thirteenth naval district.....		
Eagle 39, training reservists, seventh naval district.....		
Eagle 40, duty air station, Pearl Harbor.....		
Eagle 42, training reservists, first naval district.....		
Eagle 44, training reservists, third naval district.....		
Eagle 47, training reservists, twelfth naval district.....		
Eagle 48, training reservists, third naval district.....		
Eagle 51, training reservists, third naval district.....		
Eagle 52, training reservists, fourth naval district.....		
Eagle 54, training reservists, third naval district.....		
Eagle 55, training reservists, third naval district.....		
Eagle 56, training reservists, Washington, D. C.....		
Eagle 57, training reservists, thirteenth naval district.....		
Eagle 58, training reservists, Pearl Harbor.....		
Eagle 59, training reservists, third naval district.....		
SUMMARY OF EAGLES (PRESENT DETAIL).		
11 commission (35):		
Training reservists.....	25	
Submarine duties.....	8	
Air station duty.....	1	
Ferry, Washington to Quantico.....	1	
Total.....	35	
13 patrol vessels, submarine chasers:		
Submarine chaser 57, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 63, St. Louis, training reservists.....		
Submarine chaser 61, St. Louis, training reservists.....		
Submarine chaser 69, St. Petersburg, training reservists.....		
Submarine chaser 102, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 103, New Haven, Conn., training reservists.....		
Submarine chaser 104, Tampa, Fla., training reservists.....		
Submarine chaser 143, New York, training reservists.....		
Submarine chaser 154, seventh naval district, cable watch, Key West.....		
Submarine chaser 159, eighth naval district, station duties, New Orleans, La.....		
Submarine chaser 185, Dahlgren, Va., proving ground duties.....		
Submarine chaser 191, eighth naval district, training reservists.....		
Submarine chaser 192, Indianhead, proving ground duties.....		
Submarine chaser 210, New York and Washington, training reservists.....		
Submarine chaser 214, Haiti, activities, marine brigade, Haiti.....		
Submarine chaser 223, Haiti, activities, marine brigade, Haiti.....		
Submarine chaser 224, third naval district, training reservists.....		
Submarine chaser 229, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 231, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 237, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 251, Indianhead, Md., out of commission.....		
Submarine chaser 253, Haiti, activities, marine brigade, Haiti.....		
Submarine chaser 271, Stamford, Conn., training reservists.....		
Submarine chaser 277, eleventh naval district, duty with reserve destroyer force.....		
Submarine chaser 278, eleventh naval district, duty with reserve destroyer force.....		
Submarine chaser 284, fifteenth naval district, submarine operations.....		
Submarine chaser 285, fifteenth naval district, seaplane tender.....		
Submarine chaser 287, fifteenth naval district, undergoing overhaul.....		
Submarine chaser 303, twelfth naval district, calibration compasses.....		
Submarine chaser 306, eleventh naval district, duties connection with Pacific Fleet.....		
Submarine chaser 326, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 328, Naval Academy, intermittently training midshipmen.....		
Submarine chaser 330, ninth naval district, training reservists.....		
Submarine chaser 341, Guantanamo, ordered St. Thomas to replace submarine chaser 62.....		
Submarine chaser 408, first naval district, general district duties.....		
Submarine chaser 412, ninth naval district, training reservists.....		
Submarine chaser 419, ninth naval district, training reservists.....		
Submarine chaser 431, ninth naval district, ordered to third naval district for training reservists.....		
Submarine chaser 432, ninth naval district, at Cleveland, training reservists.....		
Submarine chaser 433, ninth naval district, ordered to third district, training reservists.....		

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 10 destroyers, and 84 submarines, with full complement and auxiliary craft), balance of men to be distributed to such other ships required so far as possible—Continued.

SUMMARY—Continued.

	Person- nel.	7 pe rep m
SUMMARY OF EAGLES (PRESENT DETAIL)—continued.		
43 patrol vessels, submarine chasers—Continued.		
Submarine chaser 437, ninth naval district, ordered to third district, training reservists		
Submarine chaser 440, Naval Academy, intermittently training midshipmen		
Submarine chaser 443, San Domingo, duties connection military government, Dominican Republic		
Submarine chaser 444, San Domingo, duties connection military government, Dominican Republic		
SUMMARY OF SUBCHASERS (PRESENT DETAIL).		
Training midshipmen	8	
Training reservists	17	
District and naval station duties	17	
Submarine and seaplane duties	2	
Total	44	
9 patrol vessels, gunboats:		
Wilmington, Asiatic Fleet, Yangtze patrol at Amoy		
Palos, Asiatic Fleet, Yangtze patrol		
Sacramento, Asiatic Fleet, assigned orders to proceed withheld		
Monocacy, Asiatic Fleet, Yangtze patrol		
Asheville, Asiatic Fleet (assigned), orders to proceed withheld		
Elcano, Asiatic Fleet, Yangtze patrol		
Pampanga, Asiatic Fleet, south China patrol		
Quiros, Asiatic Fleet, Yangtze patrol		
Villalobos, Asiatic Fleet, Yangtze patrol		
5 patrol vessels (yachts):		
Mayflower, navy yard, Washington (President)	100	
Vixen, naval station, St. Thomas (station ship)		
Sylph, navy yard, Washington (Navy Department tender)		
Nokomis, San Domingo city (station ship and transport for military government)		
Isabel, Asiatic Fleet, Yangtze patrol		
Scorpion	122	
6 auxiliaries, destroyer tenders:		
Melville	440	
Black Hawk	440	
Bridgeport	520	
Altair	450	
Denebola	450	
Rigel	450	
7 auxiliaries, submarine tenders:		
Fulton	131	
Bushnell	131	
Beaver	292	
Camden	344	
Rainbow	297	
Savannah	338	
Canopus	282	
1 auxiliary, aircraft tender, Wright	286	
2 auxiliaries, repair ships:		
Prometheus, Atlantic Fleet (train)		
Vestal, Pacific Fleet (train)	430	
3 auxiliaries, store ships:		
Bridge, Atlantic Fleet (train)		
Rappahannock, Pacific Fleet (train)		
Arctic, Atlantic Fleet (train)	288	
4 auxiliaries, colliers:		
Proetus, Atlantic Fleet	164	
Sereus, Atlantic Fleet		
Orion, Atlantic Fleet		
Jason, Pacific Fleet	164	
10 auxiliaries, oilers:		
Arethusa, N. T. S. Atlantic		
Brazos, Atlantic Fleet	120	
Cuyama, Pacific Fleet	120	
Kumagata, Pacific Fleet	120	
Sedbes, Pacific Fleet	101	
Patoka, N. T. S. Pacific	91	
Pecos, Asiatic Fleet	120	
Ramapo, N. T. S. Pacific	91	
Trinity, N. T. S. Atlantic		
Sapelo, N. T. S. Atlantic		

Allocation of 50,000 men afloat to ships of the Navy (including 18 battleships, 103 destroyers, and 84 submarines, with full complement and auxiliary craft), balance of men to be distributed to such other ships required so far as possible—Continued.

SUMMARY—Continued.

	Person- nel.	7 per cent replac- ment.
SUMMARY OF SUBCHASERS (PRESENT DETAIL)—continued.		
26 auxiliaries, mine sweepers—continued.		
Gannet, San Pedro, seaplane tender, Pacific.....	54	4
Mallard, Guantanamo, mine squadron, Atlantic.....		
Sandpiper, Miami, air squadron, Atlantic.....		
Vireo, Guantanamo, train, Atlantic.....		
SUMMARY, MINE SWEEPERS (PRESENT DETAIL).		
Atlantic train.....	5	
Pacific train.....	5	
Atlantic Air Squadron.....	2	
Atlantic Mine Squadron.....	4	
Pacific Mine Squadron.....	4	
Asiatic mine detachment.....	2	
Pacific air tender.....	1	
Submarine salvage.....	1	
Alaska radio calibration.....	1	
Bureau of Ordnance experimental purposes.....	1	
Total.....	26	
6 auxiliaries, miscellaneous:		
Hannibal, survey ship; now at work, coast of Honduras.....		
General Alava, Asiatic Station, transport, Cavite to Olongapo.....		
Paducah, navy yard, Portsmouth; assigned ninth naval district for United States Naval Reserve Force.....		
Gold Star, fitting out at Philadelphia; Alaska radio repair ship, replaces Saturn.....		
Antares, target repair ship.....		
Procyon, target repair ship.....	91	6
25 unclassified:		
Annapolis, loaned to State of Pennsylvania as nautical school ship.....		
Boston, receiving ship, San Francisco.....		
Cheyenne, training ship, United States Naval Reserve Force, fifth district, Baltimore.....		
Chicago, submarine shore-based tender at Pearl Harbor.....		
Coast B. S. No. 4 (ex-Iowa), target ship, radio-controlled.....		
Essex, ninth naval district, training United States Naval Reserve Force.....		
Gopher, ninth naval district, training, United States Naval Reserve Force.....		
Hartford, receiving ship, Charleston, S. C., naval relic.....		
Hawk, ninth naval district, training United States Naval Reserve Force.....		
Kearsarge, crane ship under conversion, navy yard, Philadelphia.....		
Nantucket, loaned to State of Massachusetts as nautical school ship.....		
Newport, loaned to State of New York as nautical school ship.....		
Old Constellation, station ship, Newport, naval relic.....		
Old Constitution, navy yard, Boston, naval relic.....		
Oregon, navy yard, Puget Sound, out of commission, naval relic.....		
Philadelphia, navy yard, Puget Sound, receiving ship.....		
Reina Mercedes, Naval Academy, station ship.....		
Southery, navy yard, Portsmouth, receiving ship.....		
Wilmette, ninth naval district, training United States Naval Reserve Force.....		
Wolverine, fourth naval district, training United States Naval Reserve Force.....		
Yantic, ninth naval district, training United States Naval Reserve Force.....		
Commodore, ninth naval district, hulk bedded in concrete, station ship for training reserves.....		
Sturgeon Bay, at Norfolk; out of commission; to be loaned to State of New York; to be transferred to Buffalo for New York Naval Militia.....		
Briarcliff, at Staten Island; loaned status, New York; training Naval Militia.....		

SHIPS (INCLUDING 18 BATTLESHIPS, 103 DESTROYERS, AND 84 SUBMARINES, WITH FULL COMPLEMENT) WHICH ARE REQUESTED, BASED UPON 50,000 MEN FOR SEA DUTY.

BATTLESHIPS, FIRST LINE.

Mr. KELLEY. Admiral, you have put in the 18 battleships with 21,231 men, and that is the number that you have asked for for next year for the battleships heretofore?

Admiral COONTZ. Yes, sir.

CRUISERS, SECOND LINE.

Mr. KELLEY. Three cruisers of the second line, 1,805 men, and is the exact number you have asked for the cruisers?

Admiral COONTZ. Except that we asked for five.

Secretary DENBY. I think he meant the personnel?

Admiral COONTZ. No, the number of men asked for. We asked five and this accounts for three.

Mr. KELLEY. There were three cruisers in the original list?

Admiral COONTZ. I think there were five.

Mr. KELLEY. Are these three cruisers of the second line, the three ordered cruisers, *Huron*, *Pueblo*, and *Seattle*?

Admiral COONTZ. No, sir; they are the *Rochester*, *Seattle*, and *Charleston*.

Mr. KELLEY. And you have eliminated—

Admiral COONTZ (interposing). The *Pueblo* and *Huron*.

Mr. KELLEY. The number of men asked for the *Seattle*, *Charleston*, *Rochester* are the same as you asked for heretofore?

Admiral COONTZ. With the exception of the *Seattle*. We reduced to replace the *Connecticut* to 612 men.

Mr. KELLEY. You have stricken out the *Huron* and the *Pueblo*?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The five cruisers, *Birmingham*, *Cleveland*, *Denver*, *Charleston*, and *Tacoma* have you entirely eliminated those?

Admiral COONTZ. Entirely from the list.

LIGHT CRUISERS, FIRST LINE.

Mr. KELLEY. And the three light cruisers?

Admiral COONTZ. They remain the same as before.

Mr. KELLEY. With the same number of men on each?

Admiral COONTZ. Yes, sir; they are military fighting units.

Mr. KELLEY. The new ones?

Admiral COONTZ. Yes, sir.

AIRCRAFT CARRIER.

Mr. KELLEY. One aircraft carrier?

Admiral COONTZ. The *Langley* remains the same.

MINE LAYER, SECOND LINE—DESTROYERS, FIRST LINE.

Mr. KELLEY. And the one mine layer?

Admiral COONTZ. We leave out the one mine layer and retain the *Albatross*, with the same number of men.

Mr. KELLEY. The 103 destroyers with the 102 men on board of each?

Admiral COONTZ. They remain and the 23 destroyers in reserve are left out.

Mr. KELLEY. The 10 light mine layers?

Admiral COONTZ. They are reduced by two.

Mr. KELLEY. You have kept the same complement that you had on before?

Admiral COONTZ. Yes, sir.

SUBMARINES, FIRST LINE.

Mr. KELLEY. Eighty-four submarines?

Admiral COONTZ. They are first-line submarines and are kept with the same number.

Mr. KELLEY. That will be about an average of 30 for each one.

Admiral COONTZ. And the 27 submarines, second line, are left out entirely.

PATROL VESSELS.

Mr. KELLEY. Besides, you reduce the number of patrol vessels how many?

Admiral COONTZ. The patrol vessels are left out in their entirety.

Mr. KELLEY. Special duty craft, is the *Mayflower* now in that list?

Admiral COONTZ. It is under the heading of patrol vessels, yachts; we followed your classification. Under patrol vessels, gunboats, all are omitted.

Mr. KELLEY. How many were there, 12?

Admiral COONTZ. We had nine.

Mr. KELLEY. Under which list is the *Mayflower*?

Admiral COONTZ. Yachts, on page 10.

Mr. KELLEY. We have not reached that yet?

Admiral COONTZ. No, sir.

Mr. KELLEY. The patrol vessels, gunboats, are left out entirely?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And the patrol vessels, yachts, except the *Mayflower* and *Scorpion*?

Admiral COONTZ. Yes, sir; we retain only two.

DESTROYER, SUBMARINE, AND AIRCRAFT TENDERS.

Mr. KELLEY. The six destroyer tenders?

Admiral COONTZ. Retained with the complements.

Mr. KELLEY. Seven submarine tenders?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One aircraft tender?

Admiral COONTZ. Yes, sir.

REPAIR AND STORE SHIPS, COLLIERIES, OILERS, AND AMMUNITION SHIPS.

Mr. KELLEY. One repair ship?

Admiral COONTZ. One repair ship retained and one left out.

Mr. KELLEY. With the same complement?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. One store ship?

Admiral COONTZ. Retained and two left out.

Mr. KELLEY. Are the three colliers the same?

Admiral COONTZ. One left out.

Mr. KELLEY. The seven oilers?

Admiral COONTZ. We have retained seven and three are left out.

Mr. KELLEY. The ammunition ships?

Admiral COONTZ. We retain both.

TRANSPORTS.

Mr. KELLEY. Three transports?

Admiral COONTZ. We retain three transports.

Mr. KELLEY. There were just three transports and you keep those?
Admiral COONTZ. Yes, sir.

HOSPITAL SHIPS.

Mr. KELLEY. One hospital ship?

Admiral COONTZ. We leave one out.

Mr. KELLEY. How could you leave out one hospital ship?

Admiral COONTZ. Simply because we had to. There is no question but that a hospital ship would go before a combatant vessel would go.

Mr. KELLEY. You would have this one in the Atlantic or Pacific?

Admiral COONTZ. In the Pacific.

Mr. KELLEY. And bring the boys to shore?

Admiral COONTZ. You would have to when you got an opportunity.

Mr. KELLEY. How many men on each of these hospital ships?

Admiral COONTZ. Three hundred and sixty-one on one and 348 on the other.

Mr. KELLEY. Which one do you leave the 361?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. That involves the question of 348 men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You would put that hospital ship out of commission rather than find 348 men somewhere?

Admiral COONTZ. If it were a case of necessity.

TUGS, MINE SWEEPERS, ETC.

Mr. KELLEY. What was the next, 12 fleet-towing vessels reduced to 9, 2 tugs and 7 mine sweepers?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Those are really all tugs?

Admiral COONTZ. I believe they are.

Captain LACKEY. They were built for mine sweepers.

Mr. KELLEY. Fashioned after a tug?

Captain LACKEY. Yes, sir. If you saw the two together, you could not tell the difference.

Mr. KELLEY. You reduce the 10 mine sweepers to 5?

Commander HILL. Four for duty with mine squadron and one is an aircraft tender.

Mr. KELLEY. With the same unit complement for those?

Admiral COONTZ. The aircraft tender has a little less complement than the regular mine sweepers; the same as we have been talking of before.

Mr. KELLEY. The two target repair ships reduced to one?

Admiral COONTZ. Yes, sir.

FLAGSHIPS.

Mr. KELLEY. And the flag complement from 1,111 to 600?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The fleet tugs are left as they were?

Admiral COONTZ. Yes, sir. There are a few other craft which we have left out which should be enumerated.

Mr. KELLEY. Please put in at this point, Admiral, the enumeration of the vessels which you have left out from the list that we discussed on Friday.

Admiral COONTZ. By name?

Mr. KELLEY. Put them in the record by name; yes, sir.

Additional ships requested to be kept by Navy, complements of which are based up 50,000 men for sea duty.

Battleships, first line, none left out.	Compl
Battleships, second line:	
Illinois, loaned to State of New York, training Naval Militia.....	1
Connecticut, to be replaced by Seattle.....	5
Battle cruisers, first line, none.	
Cruisers, second line:	
Huron, flagship, Asiatic Fleet.....	7
Pueblo, to replace Utah in European waters later.....	7
Light cruisers, first line, none.	
Light cruisers, second line:	
Special-service squadron—	
Birmingham.....	3
Denver.....	2
Galveston.....	5
Tacoma.....	5
Cleveland.....	5
Aircraft carriers, second line, none.	
Mine layers, second line:	
Baltimore, to be replaced.....	1
Aroostook.....	1
Destroyers, first line, none.	
Destroyers, second line, none.	
Destroyers, in reserve, 23.....	11
Light mine layers:	
Hart.....	
Rizal.....	
Submarines, first line, none.	
Submarines, second line:	
8 H's.....	}
8 K's.....	
8 L's.....	
3 N's.....	
Patrol vessels, Eagles, all training reservists in naval districts:	
No. 6.....	
No. 7.....	
No. 8.....	
No. 9.....	
No. 11, submarine base.	
No. 12.....	
No. 13.....	
No. 14, submarine base.	
No. 15.....	
No. 17, submarine base.	
No. 19.....	
No. 23.....	
No. 26.....	
No. 27.....	
No. 29.....	
No. 31, submarine base.	
No. 33, submarine base.	
No. 34.....	
No. 35.....	
No. 36.....	
No. 38.....	
No. 39.....	
No. 40, manned by Air Service personnel.	
No. 42.....	
No. 44.....	
No. 47.....	
No. 48.....	
No. 51.....	

Patrol vessels, Eagles, all training reservists in naval districts—Continued.		Complement.
No. 52.....		10
No. 54.....		10
No. 55.....		10
No. 56.....		10
No. 57.....		10
No. 58.....		10
No. 59.....		10
Patrol vessels, submarine chasers, all training reservists, midshipmen, etc.:		
No. 57.....		4
No. 63.....		3
No. 64.....		3
No. 69.....		3
No. 102.....		4
No. 103.....		3
No. 104.....		3
No. 143.....		3
No. 154.....		8
No. 159.....		
No. 185.....		12
No. 191.....		3
No. 192.....		11
No. 210.....		3
No. 214.....		17
No. 223.....		17
No. 224.....		3
No. 229.....		4
No. 231.....		4
No. 237.....		4
No. 251.....		
No. 253.....		17
No. 271.....		3
No. 277.....		7
No. 278.....		7
No. 284.....		7
No. 285.....		7
No. 287.....		7
No. 303.....		7
No. 306.....		7
No. 326.....		4
No. 328.....		4
No. 330.....		3
No. 341.....		9
No. 408.....		7
No. 412.....		3
No. 419.....		3
No. 431.....		3
No. 432.....		3
No. 433.....		3
No. 437.....		3
No. 440.....		4
No. 443.....		17
No. 444.....		17
Patrol vessels, gunboats:		
Wilmington.....		162
Palos.....		46
Sacramento.....		149
Monocacy.....		46
Elcano.....		93
Pampanga.....		30
Quiros.....		55
Villalobos.....		55
All Asiatic Fleet, Yangtze and South China patrol, Asheville.....		148
Asiatic Fleet (orders to proceed withheld), Isabel.....		83
Patrol vessels, Asiatic Fleet, Yangtze patrol:		
Vixen.....		72
Sylph.....		32
Nokomis.....		66

Auxiliaries:

Destroyer tenders, none.

Submarine tenders, none.

Aircraft tenders, none.

Repair ships, Prometheus.....

Atlantic Fleet, train:

Auxiliaries, store ships—

Bridge.....

Arctic.....

Auxiliaries, colliers, Nereus.....

Atlantic Fleet:

Auxiliaries, oilers—

Arethusa.....

Trinity.....

Sapelo.....

Auxiliaries, ammunition ships, none.

Auxiliaries, cargo ships—

Kittery.....

Newport News.....

Bath.....

Capella.....

Sirius.....

Vega.....

Regulus.....

Beaufort.....

Auxiliaries, transports, none.

Auxiliaries, hospital ships, Mercy.....

Auxiliaries, fleet tugs:

Sixth naval district, Pensacola, air station, Allegheny.....

Seventh naval district, Key West, district towing, Bay Spring.....

Thirteenth naval district, Puget Sound district towing, Challenge.....

Annapolis, Chesapeake Bay, towing, Chemung.....

Thirteenth naval district, Puget Sound, district towing, Iroquois.....

Fourth naval district, Philadelphia district, towing, Kalmia.....

Fourteenth naval district, Pearl Harbor, island duties, Keosanqua.....

Fifth naval district, Norfolk, air station duties, Kewaydin.....

Eleventh naval district, San Diego, district towing, Koka.....

Third naval district, New York, Lykens.....

Thirteenth naval district, Puget Sound, district towing, Mahopac.....

First naval district, Boston, district towing, Mohave.....

Guantanamo, general towing, Montcalm.....

Guam, island duties, Napa.....

Samoa, island duties, Ontario.....

Haiti, island duties, Osceola.....

First naval district, Boston, district towing, Patapsco.....

Fifteenth naval district, Canal Zone, A. S. duties, Patuxent.....

Sixteenth naval district, Cavite, Asiatic Fleet, Piscataqua.....

Santo Domingo, island towing, Potomac.....

Third naval district, Iona Island, ammunition depot, Sagamore.....

Fifteenth naval district, Canal Zone, towing, Sciota.....

Fourteenth naval district, Pearl Harbor, island duties, Sunnadin.....

St. Thomas, island duties, Tadousac.....

Thirteenth naval district, Mare Island, towing, Tillamook.....

Sixth naval district, Charleston, towing, Umpqua.....

Twelfth naval district, Norfolk, towing, Undaunted.....

Auxiliaries, mine sweepers:

Bremerton, thirteenth district, Swallow.....

Guantanamo, mine squadron, Atlantic, Curlew.....

Cavite, mine squadron, Asiatic, Finch.....

Guantanamo, train, Atlantic, Bobolink.....

Guantanamo, mine force, Atlantic, Lark.....

Charleston, air squadron, Atlantic, Teal.....

Guantanamo, train, Atlantic, Rail.....

New York Yard, submarine salvage vessel, Falcon.....

Cavite, mine squadron, Asiatic, Bittern.....

Guantanamo, mine squadron, Atlantic, Chewink.....

Philadelphia, special duty, Bureau of Ordnance, Cormorant.....

	Comple- ment.
Auxiliaries, mine sweepers—Continued.	
Guantanamo, mine squadron, Atlantic, Mallard.....	54
Miami, air squadron, Atlantic, Sandpiper.....	45
Guantanamo, train, Atlantic, Vireo.....	45
Auxiliaries, miscellaneous:	
Survey ship Hannibal.....	146
Asiatic station transport Cavite to Olongapo, General Alava.....	54
Navy yard, Portsmouth, assigned ninth district for U. S. Naval Reserve Force, Paducah. ¹	
Alaska radio repair ship, replaces Saturn, Gold Star.....	97
Target repair ship Antares.....	91
Unclassified:	
Loaned State Pennsylvania as nautical school ship, Annapolis.....	
Receiving ship at San Francisco, Boston.....	160
Training ship, U. S. Naval Reserve Force, fifth district, Cheyenne.....	34
Submarine shore based tender at Pearl Harbor, Chicago.....	385
Target ship radio controlled, Coast B. S. No. 4.....	
Ninth naval district training, U. S. Naval Reserve Force, Essex.....	18
Ninth naval district training, U. S. Naval Reserve Force, Gopher.....	15
Receiving ship Charleston, S. C., Hartford.....	75
Ninth naval district training, U. S. Naval Reserve Force, Hawk.....	6
Crane ship under conversion, Philadelphia, Pa., Kearsarge.....	227
Loaned State Massachusetts as nautical school ship, Nantucket.....	
Loaned State New York as nautical school ship, Newport.....	
Station ship, Newport, naval relic, Old Constellation.....	17
Navy yard, Boston, naval relic, Old Constitution.....	5
Navy yard, Puget Sound, out of commission, naval relic, Oregon.....	
Navy yard, Puget Sound, receiving ship, Philadelphia.....	109
Naval Academy station ship, Reina Mercedes.....	91
Navy yard, Portsmouth, receiving ship, Southery.....	47
Ninth naval district, training U. S. Naval Reserve Force, Wilmette.....	25
Fourth naval district, training U. S. Naval Reserve Force, Wolverine.....	8
Ninth naval district, training U. S. Naval Reserve Force, Yantic.....	15
Ninth naval district, Hulk bedded in concrete, station ship, training reserves, Commodore.....	6
At Norfolk, out of commission, to be transferred Buffalo for New York Naval Militia, Sturgeon Bay.....	
At Staten Island, loaned status, New York training Naval Militia, Briarcliff.....	
Total.....	13, 227

Mr. KELLEY. Please take the list as to the ones to be kept in ommission.

BATTLESHIP, SECOND LINE, BATTLE CRUISERS, AND LIGHT CRUISERS.

Admiral COONTZ. The *Illinois*.

Mr. KELLEY. She was not in your list?

Admiral COONTZ. She has been in the list all the time.

Mr. KELLEY. How many men?

Captain WILLIAMS. Fifty men, a temporary complement.

Admiral COONTZ. The following have been left out: *Huron*, 791 men; *Pueblo*, 791; *Birmingham*, 300; *Denver*, 288; *Galveston*, 288; *Tacoma*, 288; *Cleveland*, 288.

Mr. KELLEY. Those are the five cruisers?

Admiral COONTZ. Yes, sir. *Aroostook*, 250; 23 destroyers in reduced commission.

¹When the Paducah arrives at Duluth, she will share the complement of the Essex; the Paducah and the Essex 3. ((See the Essex.))

DESTROYERS, EAGLES, SUBMARINE CHASERS, AUXILIARIES, ETC.

Mr. KELLEY. How many on the destroyers?

Admiral COONTZ. Thirteen hundred and eleven. *Hart*, 99; *Rial*, 99; 27 submarines, second line, 430; 35 eagles, 350; 44 subchasers, approximately 215.

Wilmington, 162; *Palos*, 46; *Sacramento*, 149; *Monocacy*, 46; *Asheville*, 148; *Elcano*, 93; *Pampanga*, 30; *Quiros*, 55; *Villalobos*, 55; *Vizza*, 72; *Sylph*, 32; *Nokomis*, 66; *Isabel*, 83; *Prometheus*, 430; *Bridge*, 189; *Arctic*, 188; *Nereus*, 164; *Arethusa*, 78; *Trinity*, 91; *Sapelo*, 91; *Kittery*, 87; *Newport News*, 113; *Bath*, 88; *Capella*, 91; *Sirius*, 91; *Vega*, 91; *Regulus*, 91; *Beaufort*, 72; *Mercy*, 348; *Allegheny*, 30; *Bay Spring*, 24; *Challenge*, 14; *Chemung*, 20; *Iroquois*, 20; *Kalmia*, 30; *Keosauqua*, 39; *Kewadin*, 30; *Koka*, 30; *Lykens*, 30; *Mahopac*, 30; *Mojave*, 20; *Montcalm*, 39; *Napa*, 39; *Ontario*, 54; *Osceola*, 34; *Patuxent*, 30; *Patuxent*, 30; *Piscataqua*, 44; *Potomac*, 42; *Sagamore*, 20; *Sciota*, 20; *Sunnadin*, 39; *Tandusoc*, 39; *Tillamook*, 12; *Umpqua*, 30; *Undaunted*, 22; *Swallow*, 41; *Curlew*, 54; *Finch*, 54; *Bobolink*, 45; *Lark*, 54; *Teal*, 45; *Rail*, 45; *Falcon*, 54; *Bittern*, 54; *Chewink*, 54; *Cormorant*, 54; *Mallard*, 54; *Sandpiper*, 45; *Vireo*, 45; *Hannibal*, 146; *General Alava*, 54; *Paducah*, shares complement with *Essex*; *Gold Star*, 97; *Antares*, 91.

I will have to look up the *Antares*, and the *Annapolis* has no complement. A number of them are training reserves. There are about 30 of them training reserves.

SHIPS USED FOR TRAINING RESERVES.

Mr. KELLEY. What is the sum total of those 30 training reserves?

Admiral COONTZ. Twenty-five eagles, 17 submarine chasers, and 6 miscellaneous vessels. I think we would have to pull them out. The *Boston* is a receiving ship at San Francisco; the *Cheyenne* has 34; the *Chicago* is attached to a submarine base at Pearl Harbor; the complement of the ex-*Iowa* is combined with that of the *Ohio*, and both go out of commission; the *Essex* has 18; the *Gopher* has 15; the *Hartford* is a receiving ship; the *Hawk* has 6; the *Kearsarge* is not in commission; the *Nantucket* has no Navy personnel; the *Newport* has no Navy personnel; the *Constellation* is carried under shore stations; the *Constitution* is carried under shore stations; the *Oregon* is out of commission—another relic; the *Philadelphia* is a receiving ship; the *Reina Mercedes* is at the Naval Academy, Annapolis; the *Southery* is a receiving ship; the *Wilmette* has 25; the *Wolverine*, 8; the *Yantic*, 15; the *Commodore*, 6; the *Sturgeon Bay*, nothing. I have nothing under *Sturgeon Bay*. She would come under shore stations. The *Briardiff* belongs at New York.

That is the end of the list.

Mr. KELLEY. Do you remember how many that takes out, or have you added it up?

Admiral COONTZ. About 13,227. I will have to go over it and verify the figures.

Mr. KELLEY. In revising your remarks, put them under the proper classifications.

Admiral COONTZ. I will do so.

Mr. KELLEY. I would like for you to do that so that we may preserve the classification with the original list, in order that anybody making a comparison or in checking the list over would know exactly what classifications those ships are taken out of. They were one list together, and I would like for you to separate them, giving a number of men added for each group. Then let the footings show that the 10,000 have been eliminated by reason of those ships. **Admiral COONTZ.** I will do so.

Secretary DENBY. I would like to put in a statement in the form of letter at this point, covering the matter just gone over.

Mr. KELLEY. When the hearings come down to you for revision, I suggest that you insert your letter at this point.

(The statement referred to is as follows:)

SECRETARY OF THE NAVY,
Washington, March 18, 1922.

MY DEAR MR. CHAIRMAN: I have received your letter of March 16 suggesting that the bureaus be informed in time to prepare estimates on the basis of a Navy of 65,000 men and giving a schedule of dates on which the different bureau representatives are to appear before the committee. The bureaus have been instructed accordingly, and you are now hearing them from day to day. In the meantime the department has been engaged upon the very difficult task of allocating the personnel upon the theoretical basis of 65,000 men.

I send you inclosed herein a list of ships to be retained upon the basis of 65,000 men at shore stations, together with the personnel for their necessary operation.

The salient facts to be considered in connection with the study of these figures are:

1) That our available force for sea is 46,000, because in the opinion of the department it is vitally necessary for the best interests of the Navy and the Government to keep the vessels referred to in commission and the shore station activities as a necessary adjunct.

2) Six battleships of the first line, being all the 12-inch gun ships, will of necessity go into ordinary with complements only large enough to preserve them and keep them ready for as quick action as possible. I also call your attention in this connection to the fact that this involves the withdrawal of the flagship *Utah* from the European Squadron and the abandonment of that station. It is the opinion of the department that for the national defense it is better to have 12 full complement, ready-for-action ships than it is to have 18 part complement ships not ready for action. I personally believe that a ship too greatly undermanned is a sick ship and will be of little account in battle.

3) In addition to the 46,000 actually serving on ships, the arbitrary 7 per cent replacements bring up the figure to 50,550, leaving for shore stations only 14,450.

4) The destroyers are reduced to 65 with 90 per cent complements, with 50 in reserve with 50 per cent complements.

5) All submarines, second line, are placed out of commission.

6) Practically all Eagle boats, subchasers, and other small craft now used for training reservists or other purposes go out of commission.

7) If we are to consider the appropriation for the year as of July 1 to be on the basis of 65,000 men, we must start the year on July 1 with 65,000 men. That means we must reduce between the date of the approval of the appropriation bill for the fiscal year 1923, should it contain the figure of 65,000, by getting rid, by discharge or otherwise, of approximately 31,000 men. The committee will readily appreciate the difficulty that confronts the department in such a procedure, concerning which we will be happy to make further explanation upon call.

In the submission of our figures it must always be remembered that the Navy is a mobile force; that it is subject to constant unexpected demands and changes, and therefore all detailed figures must be considered as only tentative, subject to change as the department as necessity arises.

In regard to the figure submitted, I must further inform you that it is wholly inadequate in the estimation of the department to properly man the United States Navy. It will necessitate leaving ships of vital importance out of the battle line. The ratio established in the naval treaty which is now before the Senate for consideration is the three great naval powers, the United States, Great Britain, and Japan, 5-5-3. Under the personnel allowance of 65,000, according to our best information, this ratio will be reduced to 24-5-3 for the United States, Great Britain, and Japan, respec-

tively; or, more concretely, the American personnel will be one-half that of Great Britain and will be considerably less than that of Japan. I need not comment upon the extraordinary spectacle thus presented.

Sincerely yours,

EDWIN DENT

HON. MARTIN B. MADDEN,
Chairman Committee on Appropriations,
House of Representatives.

March 16, 1922.

	Person- nel.	7 re- q- u- i- r- e- d
12 battleships, first line (95 per cent complements).....	14,244	
6 battleships, first line (in ordinary).....	1,226	
4 cruisers, second line.....	2,586	
3 light cruisers, first line.....	1,257	
3 light cruisers, second line.....	876	
1 aircraft carrier, second line.....	339	
1 mine layer, second line.....	354	
65 destroyers, first line (90 per cent complements).....	6,630	
50 destroyers, first line (50 per cent complements).....	2,850	
4 light mine layers.....	280	
84 submarines, first line.....	2,579	
10 patrol vessels, gunboats.....	866	
4 patrol vessels.....	430	
5 destroyer tenders.....	2,309	
7 submarine tenders.....	1,882	
1 aircraft tender.....	298	
1 repair ship.....	430	
1 store ship.....	268	
2 colliers.....	328	
7 oilers.....	763	
2 ammunition ships.....	354	
5 cargo vessels.....	451	
3 transports.....	833	
1 hospital ship.....	361	
8 tugs (includes 6 station ships).....	340	
10 mine sweepers (2 mine sweeping, 7 fleet towing, and 1 air tender).....	477	
4 auxiliaries, miscellaneous.....	388	
Flag complements.....	791	
Fleet aviation.....	1,100	
Total.....	46,000	
12 battleships, first line (95 per cent complements):		
Pacific Fleet—		
New York.....	1,243	
Texas.....	1,243	
Nevada.....	1,127	
Oklahoma.....	1,127	
Pennsylvania.....	1,176	
Arizona.....	1,170	
New Mexico.....	1,208	
Mississippi.....	1,170	
Idaho.....	1,170	
Tennessee.....	1,203	
California.....	1,203	
Maryland (assigned).....	1,204	
Total.....	14,244	
6 battleships, first line (in ordinary):		
In ordinary—		
Delaware.....	206	
North Dakota.....	206	
Florida.....	206	
Utah (European waters, flag).....	206	
Wyoming.....	206	
Arkansas.....	206	
Total.....	1,236	
2 battleships, second line:		
Illinois, loaned to State of New York, training Naval Militia.....		
Connecticut, to be replaced by armored cruiser Seattle if treaty is signed.....		
Battle cruisers, first line: None (2 to be converted to aircraft carriers).....		
4 cruisers, second line:		
Rochester, Atlantic Fleet destroyers (flag) at Charleston, S. C.....	544	
Huron, Asiatic Fleet (flagship).....	791	

March 16, 1922—Continued.

	Person- nel.	7 per cent replaces.
nd line—Continued.		
avy yard, Puget Sound, out of commission (Seattle to replace Con- if treaty is signed).....	612	.....
replace Utah in European waters later.....	649	.....
, Pacific Fleet destroyer flagship.....		
.....	2,596	182
, first line:		
ommission when completed Mar. 31, 1922.....	419	.....
hen completed.....	838	.....
.....	1,257	88
, second line:		
vice squadron—		
ngham.....	300	.....
.....	288	.....
ston.....	288	.....
la.....		
and.....		
.....	876	61
er, second line: Langley (ex-Jupiter), being converted at navy yard, e completion May 1, 1922; will be commissioned about Apr. 1, 1922.....	339	24
cond line:		
, Pacific Fleet, mine squadron 2, at Pearl Harbor to go out of commis- n relieved by Aroostock.....		
, Pacific Fleet aircraft tender, goes to mine force when relieved by Atlantic Fleet, mine squadron 1.....	356	25
first line (90 per cent complement):		
ntic Fleet.....	19	
ific Fleet.....	19	
tic Fleet.....	19	
an waters.....	8	
.....	65	
first line (50 per cent complement):	6,630	464
ston and San Diego.....	2,850	200
cond line: None.		
ayers:		
ine squadron—		
.....		
.....		
ne squadron—	95	
ne squadron—		
arm.....	95	
w.....	95	
ny.....		
ne aquadron—	95	
.....		
il.....	380	27
, first line:		
.....	432	.....
.....	729	.....
.....	1,292	.....
.....	126	.....
.....	2,579	181
, second line:		
.....		
.....		
ds, Eagles:		
t Pearl Harbor, engaged in antisubmarine tactics.....		
t Pearl Harbor, engaged in antisubmarine tactics.....		
t Pearl Harbor, engaged in antisubmarine tactics.....		
th naval district, training reservists.....		
duty with submarines at San Pedro (personnel shown under shore ments).....		
training reservists, eleventh naval district.....		

March 16, 1922—Continued.

	Person- nel.	7 per cent replace- ment.
35 patrol vessels, Eagles—Continued.		
Eagle 13, training reservists, third naval district.		
Eagle 14, duty with submarines at Pearl Harbor (personnel shown under shore establishment).		
Eagle 15, training reservists, third naval district.		
Eagle 17, duty with submarines, Hampton Roads (personnel shown under shore establishment).		
Eagle 19, training reservists, first naval district.		
Eagle 23, on duty Quantico, freight and passengers to Washington.		
Eagle 26, training reservists, third naval district.		
Eagle 27, training reservists, third naval district.		
Eagle 29, training reservists, first naval district.		
Eagle 31, duty submarines at Coco Solo (personnel shown under shore establishment).		
Eagle 33, duty submarines, New London (personnel shown under shore establishment).		
Eagle 34, training reservists, eleventh naval district.		
Eagle 35, training reservists, twelfth naval district.		
Eagle 36, training reservists, eighth naval district.		
Eagle 38, training reservists, thirteenth naval district.		
Eagle 39, training reservists, seventh naval district.		
Eagle 40, duty air station, Pearl Harbor.		
Eagle 42, training reservists, first naval district.		
Eagle 44, training reservists, third naval district.		
Eagle 47, training reservists, twelfth naval district.		
Eagle 48, training reservists, third naval district.		
Eagle 51, training reservists, third naval district.		
Eagle 52, training reservists, fourth naval district.		
Eagle 54, training reservists, third naval district.		
Eagle 55, training reservists, third naval district.		
Eagle 56, training reservists, Washington, D. C.		
Eagle 57, training reservists, thirteenth naval district.		
Eagle 58, training reservists, Pearl Harbor.		
Eagle 59, training reservists, third naval district.		
Eagles, summary (present detail)—		
In commission, 35—		
Training reservists.	25	
Submarine duties.	8	
Air-station duty.	1	
Ferry, Washington to Quantico.	1	
Total.	35	
43 patrol vessels, submarine chasers:		
Scout cruiser 57, Naval Academy, intermittently training midshipmen.		
Scout cruiser 63, St. Louis, training reservists.		
Scout cruiser 64, St. Louis, training reservists.		
Scout cruiser 69, St. Petersburg, training reservists.		
Scout cruiser 102, Naval Academy, intermittently training midshipmen.		
Scout cruiser 103, New Haven, Conn., training reservists.		
Scout cruiser 104, Tampa, Fla., training reservists.		
Scout cruiser 143, New York, training reservists.		
Scout cruiser 154, seventh naval district, cable watch, Key West.		
Scout cruiser 159, eighth naval district, station duties, New Orleans, La.		
Scout cruiser 185, Dahlgren, Va., proving ground duties.		
Scout cruiser 191, eighth naval district, training reservists.		
Scout cruiser 192, Indianhead proving ground duties.		
Scout cruiser 210, New York and Washington, training reservists.		
Scout cruiser 214, Haiti, activities, marine brigade, Haiti.		
Scout cruiser 223, Haiti, activities, marine brigade, Haiti.		
Scout cruiser 224, third naval district, training reservists.		
Scout cruiser 229, Naval Academy, intermittently training midshipmen.		
Scout cruiser 231, Naval Academy, intermittently training midshipmen.		
Scout cruiser 237, Naval Academy, intermittently training midshipmen.		
Scout cruiser 251, Indianhead, Md., out of commission.		
Scout cruiser 253, Haiti, activities, marine brigade, Haiti.		
Scout cruiser 271, Stanford, Conn., training reservists.		
Scout cruiser 277, eleventh naval district, duty with reserve destroyer force.		
Scout cruiser 278, eleventh naval district, duty with reserve destroyer force.		
Scout cruiser 284, fifteenth naval district, submarine operations.		
Scout cruiser 285, fifteenth naval district, seaplane tender.		
Scout cruiser 287, fifteenth naval district, undergoing overhaul.		
Scout cruiser 303, twelfth naval district, calibration compasses.		
Scout cruiser 306, eleventh naval district, duties connection with Pacific Fleet.		
Scout cruiser 326, Naval Academy, intermittently training midshipmen.		
Scout cruiser 328, Naval Academy, intermittently training midshipmen.		
Scout cruiser 330, ninth naval district, training reservists.		
Scout cruiser 340, St. Thomas.		
Scout cruiser 408, first naval district, general district duties.		
Scout cruiser 412, ninth naval district, training reservists.		
Scout cruiser 419, ninth naval district, training reservists.		

March 16, 1922—Continued.

	Person- nel.	7 per cent replace- ments.
submarine chasers—Continued.		
31, ninth naval district, ordnance third naval district for training		
32, ninth naval district, at Cleveland, training reservists		
33, ninth naval district, ordnance third district, training reservists		
37, ninth naval district, ordnance third district, training reservists		
40, Naval Academy, intermittently training midshipmen		
43, San Domingo, duties connection military government, Domin- ic		
44, San Domingo, duties connection military government, Domin- ic		
Summary (present detail)—		
midshipmen	8	
reservists	17	
naval station duties	17	
land and seaplane duties	2	
	44	
subboats:		
Asiatic Fleet, Yangtze patrol at Amoy	162	
Fleet, Yangtze patrol	46	
Asiatic Fleet, assigned orders to proceed withheld	149	
Asiatic Fleet, Yangtze patrol	46	
Fleet, assigned orders to proceed withheld	148	
Asiatic Fleet, Yangtze patrol	92	
Asiatic Fleet, South China patrol	30	
Asiatic Fleet, Yangtze patrol	55	
Asiatic Fleet, Yangtze patrol	55	
Fleet, Yangtze patrol	83	
	866	61
dry yard, Washington (President)	160	
station, St. Thomas (station ship)	72	
Domingo City (station ship and transport for military government)	66	
Constantinople station ship	132	
	430	30
destroyer tenders:		
	449	
	440	
	520	
	450	
	450	
	2,309	162
marine tenders:		
	134	
	195	
	292	
	344	
	297	
	338	
	282	
	1,882	132
craft tenders: Wright	286	20
air ships:		
Atlantic Fleet (training)		
Fleet (training)	430	30
re ships:		
Asiatic Fleet (training)		
Pacific Fleet (training)	268	19
Asiatic Fleet (training)		
liers:		
Asiatic Fleet		
Asiatic Fleet		
Asiatic Fleet	164	
Asiatic Fleet	164	
	328	23
ers:		
U. S. Atlantic		
Asiatic Fleet	120	
Asiatic Fleet	120	

March 16, 1922—Continued.

	Person- nel.
(10) Auxiliary oilers—Continued.	
Kanawha, Pacific Fleet.....	120
Neches, Pacific Fleet.....	101
Total.....	461
Patoka, N. T. S. Pacific.....	91
Pecos, Asiatic Fleet.....	120
Ramapo, N. T. S. Pacific.....	91
Trinity, N. T. S. Atlantic.....	
Sapelo, N. T. S. Atlantic.....	
Total.....	768
(2) Auxiliaries, ammunition ships:	
Pyro.....	177
Nitro.....	177
Total.....	354
(8) Auxiliaries, cargo ships:	
Kittery.....	57
Newport News.....	
Bath.....	
Capella.....	91
Sirius.....	91
Vega.....	91
Regulus.....	91
Beaufort.....	
Total.....	451
(3) Auxiliaries, transports:	
Henderson.....	367
Argonne.....	223
Chaumont.....	214
Total.....	803
(2) Auxiliaries, hospital ships:	
Relief.....	361
Mercy.....	
Total.....	361
(29) Auxiliaries, fleet tugs:	
Allegheny, eighth naval district, Pensacola, air station duties.....	
Bay Spring, seventh naval district, Key West, district towing.....	
Challenge, thirteenth naval district, Puget Sound, district towing.....	
Chemung, at Annapolis, Chesapeake Bay towing.....	
Cotocook, on duty with Atlantic Fleet.....	39
Iroquois, thirteenth naval district, Puget Sound, district towing.....	
Kalmia, fourth naval district, Philadelphia, district towing.....	
Keosauqua, fourteenth naval district, Pearl Harbor, island duties.....	
Kewadin, fifth naval district, Norfolk, air station duties.....	
Koka, eleventh naval district, San Diego, district towing.....	
Lykens, third naval district, New York.....	
Mahopac, thirteenth naval district, Puget Sound, district towing.....	
Mohave, first naval district, Boston, district towing.....	
Montcalm, Guantanamo, general towing.....	39
Napa, Guam, island duties.....	39
Ontario, Samoa, island duties.....	54
Osceola, Haiti, island duties.....	34
Patapsco, first naval district, Boston, district towing.....	
Patuxent, fifteenth naval district, Canal Zone, air station duties.....	
Piscataqua, sixteenth naval district, Cavite, Asiatic Fleet.....	
Potomac, Santo Domingo, island towing.....	43
Sagamore, third naval district, Iona Island, ammunition depot duties.....	
Sciota, fifteenth naval district, Canal Zone, district towing.....	
Sonoma, on duty with Pacific Fleet.....	54
Sunnadin, fourteenth naval district, Pearl Harbor, island duties.....	
Tadousac, St. Thomas, island duties.....	39
Tillamook, twelfth naval district, Mare Island, district towing.....	
Umpqua, sixth naval district, Charleston, district towing.....	
Undaunted, twelfth naval district, Norfolk, district towing.....	
Total.....	340
(26) Auxiliaries, mine sweepers:	
Robin, Guantanamo, training, Atlantic.....	45
Swallow, Bremerton, thirteenth district.....	
Tanager, Pearl Harbor, mine squadron, Pacific.....	54

March 16, 1922—Continued.

	Person- nel.	7 per cent replac- ements.
mine sweepers—continued.		
San Pedro, training, Pacific.	45	
Panama, mine squadron, Atlantic.		
Alto, mine squadron, Asiatic.		
Panama, training, Atlantic.	45	
San Diego, training, Pacific.	45	
Panama, training, Atlantic.		
Panama, mine force, Atlantic.		
Winston, air squadron, Atlantic.		
San Diego, training, Pacific.	45	
San Pedro, training, Pacific.	45	
Panama, training, Atlantic.		
New York yard, submarine salvage vessel.		
Pearl Harbor, mine squadron, Pacific.	54	
San Diego, training, Pacific.	45	
Pearl Harbor, mine squadron, Pacific.		
Alto, Pearl Harbor, mine squadron, Pacific.		
Alto, mine squadron, Asiatic.		
Panama, mine squadron, Atlantic.		
Philadelphia, special duty, Bureau of Ordnance.		
San Pedro, seaplane tender, Pacific.	54	
Panama, mine squadron, Atlantic.		
Miami, air squadron, Atlantic.		
Panama, training, Atlantic.		
	477	33
mine sweepers (present detail):		
Alto, fleet towing.	5	
Alto, fleet towing.	5	
Alto, squadron.	2	
Alto, mine squadron.	4	
Alto, squadron.	4	
Alto, detachment.	2	
Alto, tender.	1	
Alto, salvage.	1	
Alto, calibration.	1	
Alto, ordnance experimental purposes.	1	
	26	
miscellaneous:		
Alto, survey ship: now at work coast Honduras.	146	
Alto, Asiatic station: transport, Cavite to Olongapo.	54	
Alto, navy yard, Portsmouth; assigned ninth naval district for United States Naval Reserve Force.		
Alto, training out at Philadelphia: Alaska radio repair ship, replaces Saturn.	97	
Alto, repair ship.	91	
Alto, repair ship.		
	388	27
1:		
loaned State of Pennsylvania as nautical school ship.		
Alto, living ship, San Francisco.		
Alto, training ship, United States Naval Reserve Force, fifth district, Bal-		
Alto, marine shore-based tender at Pearl Harbor.		
Alto, No. 4 (ex-Iowa), target ship, radio controlled.		
Alto, ninth naval district training, United States Naval Reserve Force.		
Alto, eighth naval district training, United States Naval Reserve Force.		
Alto, receiving ship, Charleston, S. C., naval relic.		
Alto, eighth naval district training, United States Naval Reserve Force.		
Alto, crane ship under conversion, navy yard, Philadelphia.		
Alto, loaned State Massachusetts as nautical school ship.		
Alto, loaned State New York as nautical school ship.		
Alto, station ship, Newport, naval relic.		
Alto, station ship, Boston, naval relic.		
Alto, navy yard, Puget Sound, out of commission, naval relic.		
Alto, navy yard, Puget Sound, receiving ship.		
Alto, Albatross, Naval Academy station ship.		
Alto, navy yard, Portsmouth receiving ship.		
Alto, ninth naval district training, United States Naval Reserve Force.		
Alto, fourth naval district training, United States Naval Reserve Force.		
Alto, eighth naval district training, United States Naval Reserve Force.		
Alto, ninth naval district, hulk bedded in concrete, station ship, training		
Alto, at Norfolk: out of commission; to be loaned State New York; of-		
ferred to Buffalo for New York Naval Militia.		
Alto, Staten Island, loaned status, New York, training Naval Militia.		

Distribution of forces on shore, based on Navy of 65,000 men (46,000 men afloat)

Shore-base tenders.....	1
District vessels.....	1
Receiving ships and barracks.....	1
Navy yards.....	1
Training stations (150 caretakers).....	1
Trade schools (includes students).....	1
Hospitals.....	1
Naval prisons.....	1
Communications.....	1
Aviation.....	1
Ammunition depots and torpedo stations.....	1
Recruiting.....	1
Men under training.....	3
Replacements.....	4
Grand total.....	19

DISTRICT CRAFT.

DESIGNATION.

Mr. KELLEY. There is one classification of seagoing craft that did not have your comment on the other day, and that is the district craft, which were put down in the Paymaster General's report, and you were going to look them up. You will find that on page 1 of the paymaster's report for 1921. There appears to have been expended \$4,307,136.97 for district craft, and we have not been able to find out what ships those were.

Secretary DENBY. They are also covered as district craft in Navy districts.

Mr. KELLEY. This comes under the title of fleet maintenance.

Secretary DENBY. You will remember that we had a discussion about that the other day.

Mr. KELLEY. If they are improperly classified here, we want to know that.

Admiral COONTZ. I would like to make this statement regarding those figures: Under the heading of Statement No. 4, naval districts found on page 155 of the Annual Report of the Paymaster General for the Navy for the fiscal year 1921, there is a charge of \$4,307,136.97 made up of six subtotals under an equal number of headings distributed among the 14 naval districts. This charge is not an appropriation charge, but is a summary of items under many appropriations which contribute to the expense of the 14 naval districts.

The figures include charges ashore and afloat within each naval district which are not charged to a specific ship or station. It does not include charges to ships and stations which are otherwise separately listed in the report of the Paymaster General. Thus, on pages 93 to 154 are listed certain specific ships and stations. The charge to naval districts does not include these particular ships and stations. In general, it does not include tugs and patrol vessels, because they will be found separately listed. In general, it may be said that it includes the "District craft" listed in the Ship's Data Book, those ships which have been separately listed elsewhere in the Paymaster General's report, specifically tugs and patrol vessels. It does not include charges which are specifically made to any large station.

thin a naval district. During the war it was the custom to recapitulate under the heading "Naval districts" the expenses of all activities within each naval district which did not amount to more than \$50,000 for the year. This procedure is still in force in a general way, and consequently the recapitulation under the heading naval districts is a catchall for small items. In regard to floating equipment and small miscellaneous craft, these are assigned to each naval district for general utility and service, such as salvage, wrecking, dredging, rescue work, etc. Some of these craft are retained for general work in the district, and in such cases their charges are recapitulated under the heading "Naval districts." On the other hand, most of these craft are assigned to a specific large station, in which case they are carried as belonging to that station. It is thus seen that the physical and geographic layout of a naval district has no influence on whether these miscellaneous craft can be assigned to a specific station, or whether they are retained under the commandant of the naval district for general service of all of the activities in the immediate locality.

The charges under the recapitulation, "Naval districts" include items like the following: The headquarters organization, pay for naval personnel, pay for civil personnel, rations and subsistence, hospitals, rifle ranges, training camps, coal barges, oil barges, stevedoring barges, torpedo testing barges, water barges, floating derricks, ferries, launches, ammunition lighters, ash lighters, freight lighters, storage lighters, pile drivers, floating workshops, seaplane barges, ambulance boats, heating scows, dredges, seaplanes, wrecking derricks, and mud scows, where they are not carried separately or assigned to a specific station. I refer you to pages 326 and 331 of the Ship's Data Book, July 1, 1921, for the allocation of these craft to the districts.

Captain Leutze is here and can make any further explanation of this matter you desire. These are what might be called small catchalls on the coast of the United States, and such places which are brought under these headings, and where the money is provided under other appropriations, from "Pay, miscellaneous" on down.

Mr. KELLEY. They are not district craft?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They are not included with these other ships?

Admiral COONTZ. Yes, sir; district craft is a very minor thing.

Mr. KELLEY. This charge is not minor.

Admiral COONTZ. I mean as compared with the large-sized ships.

SEPARATION OF CHARGES AGAINST DISTRICT CRAFT AND SHORE STATIONS.

Secretary DENBY. Is there any way of separating the charges against these district craft from the shore charges?

Mr. REED. No, sir; we can not analyze them that way.

Secretary DENBY. You can not get the exact personnel and the cost?

Admiral COONTZ. One item is \$450,000 for rent.

Mr. REED. No, sir; there is no rent under this.

Mr. KELLEY. Mr. Reed, this is your work—the Paymaster General's report?

Mr. REED. Yes, sir.

Mr. KELLEY. Are there any charges under this heading that are properly chargeable against shore stations?

Mr. REED. In the expense of personnel, or enlisted personnel, there are probably some charges of that kind that come in where the accounts of the personnel attached are carried on the ships. In other words, although actually employed on shore, and while their duties are on shore, their accounts are carried on the ships.

TOTAL OPERATING EXPENSES.

Mr. KELLEY. What do you mean by the column, "Total operating expenses, \$3,826,000"? That is operating expenses of what? Does that relate to ships or to shore stations; and if it is for shore stations, why do you put it in here?

Mr. REED. The charges were reported or the accounts were reported by the disbursing officers having charge of floating equipment. The charges were reported in that way as charges against floating equipment.

Mr. KELLEY. The charges were reported to you as having been incurred against floating matériel of the Navy, and that is why you put it here?

Mr. REED. Yes, sir.

Mr. KELLEY. Is there anything in there for the support of shore stations, so far as you know?

Mr. REED. The only item that would be in there in connection with shore stations would be pay of personnel.

Mr. KELLEY. If it were pay of personnel for people on shore, would not be in here, would it?

Mr. REED. If they were reported as being attached to a ship.

Mr. KELLEY. That is to say, every dollar in this table was reported to you as having been incurred on vessels afloat?

Mr. REED. No, sir; not vessels afloat.

Mr. KELLEY. As attached to vessels?

Mr. REED. Yes, sir; or some floating equipment.

Secretary DENBY. We have a very similar question in regard to the shore-based submarines.

Mr. KELLEY. That is different. This naval district business is expensive luxury, and it is one place where we can use the kn. The admiral told us the other day that there were no vessels attached to these places, and now we have a list of I don't know how many barges and other vessels attached to these stations.

Admiral COONTZ. I still stand on my statement, and I dispute the statement of Mr. Reed as to how the money is spent. I would like to have a representative of the Paymaster General's Department to make an explanation of it. We got this list from the Bureau of Supplies and Accounts, and I dispute that statement of Mr. Reed.

Mr. KELLEY. You can see how helpless a committee of Congress is, if you and your officers do not know where the charges are.

Secretary DENBY. A statement will be forwarded to you covering that.

CRAFT OPERATED UNDER "FLEET MAINTENANCE."

Mr. KELLEY. Somebody should know where this \$5,000,000 has been spent; that is, whether on shore or whether on vessels attached to shore stations used as barracks or for other purposes. We would like to know what it is for, because this makes quite a difference.

Secretary DENBY. You want a list of the barges?

Mr. KELLEY. If you or if we are going to ask Congress to appropriate \$5,000,000 for these districts, it will be necessary for us to know something about these vessels that are running up and down the coast. It will be necessary for us to know what they are and what they are for. We want to know why these vessels that were not being kept up before the war are being kept up now. We want to know why all these little craft are used, and why they are permitted to burn up coal and oil fuel. From the item of pay of men alone, amounting to about \$934,000, it would seem that there are about 1,000 men involved here.

Colonel ROOSEVELT. I know in a general way about it, but I can not itemize it. I know about where the money goes, and it goes partly one way and partly another. In so far as the district expenses go, they are carried under different heads.

Secretary DENBY. They have always had these harbor craft that go around and attend upon the ships and stations. You have got to have coal barges, tugs, scows, and all those things.

Mr. KELLEY. Are those tugs manned by enlisted men?

Admiral COONTZ. Most of them.

Mr. KELLEY. The water barges and other craft of that kind carried on this list here are manned by enlisted men?

Admiral COONTZ. A good many of them are. About 1,500 men are required to man all of these craft. These things have always been assigned at navy yards, and we have always had tugs, coal barges, and lighters of different kinds. What I want to bring out is that so far as I know there are no district craft running up and down on the coast, except what we have gone over already.

Mr. KELLEY. I understood you to say the other day that you had given us a full list of the vessels, but now you give us another list.

Colonel ROOSEVELT. I think we are talking at cross purposes. I think the admiral intended to say that the lighters, derricks, water barges, etc., are not vessels. I think the admiral has been using that as the dividing line.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. I do not need to tell the admiral what a ship is. I suppose that anything that floats should go on this list, or that was the idea I had. Here is a list in the report of the Paymaster General of the Navy, under upkeep of the Navy. This is under the title of "Fleet maintenance," and there is an item of \$5,000,000 in there under "Fleet maintenance." Now, we want to find out what ships they are.

Admiral COONTZ. I can give you a statement of all the craft at the navy yards which have not been tabulated elsewhere.

Mr. KELLEY. These are not included in the cost of maintenance of vessels at navy yards proper, nor under shore activities.

Admiral COONTZ. They should be charged to navy yards as activities in almost every case.

Mr. KELLEY. Mr. Reed, what small navy-yard craft are put down as shore craft?

Mr. REED. The expenses of barges, lighters, and things of that kind that are specifically attached to a particular station are reported in these tables as expenses of the station.

Mr. KELLEY. Of shore stations?

Mr. REED. Yes, sir.

Mr. KELLEY. Then the vessels not attached to any navy yard station are purely district craft operated by district organizations?

Mr. REED. Yes, sir; although they are temporarily at the time assigned to work at a particular yard or station.

Colonel ROOSEVELT. They are functioning in the same way as other craft.

ALLOCATION OF DISTRICT CRAFT.

Mr. KELLEY. Every navy yard and every naval station has a lot of small craft with which they handle yard business. They take water out to a ship or some material out to a ship, and it is considered as a yard proposition. It is paid for out of the Bureau of Yards and Docks appropriation, is it not, or out of Steam Engineering, or Construction and Repair, but it does not come out of upkeep of the Navy.

Secretary DENBY. Here is a memorandum on that subject.

Mr. KELLEY. These craft are charged against yard establishments but here is a list of craft the upkeep of which or the maintenance of which amounts to \$5,000,000 a year, and these craft are not properly the property of any navy yard, but they belong to the naval district organizations, being made up of yachts—

Mr. REED (interposing). Of barges, lighters, derricks, etc.

Mr. KELLEY. They are not assigned to any navy yard at all.

Commander HILL. They are assigned to navy yards.

Mr. KELLEY. Then, if they are assigned to navy yards, they should be paid for from navy-yard funds. If they are not assigned to navy yards, but are assigned to these organizations, are they paid for in this way?

Admiral COONTZ. Yes, sir.

OPERATION OF NAVAL DISTRICTS.

Mr. KELLEY. Who has control of them, then; you or the Bureau of Construction and Repair?

Admiral COONTZ. The commandant of the naval district. I have assigned them by name, and I would like to read from the record—

Mr. KELLEY (interposing). Let us get at the fundamental thing first. Who has charge of these naval districts?

Admiral COONTZ. I look out for the commandants.

Mr. KELLEY. You do not have charge directly of the navy yards?

Admiral COONTZ. No, sir.

Mr. KELLEY. They are indirectly operated by the Bureau of Construction and Repair?

Admiral COONTZ. No, sir; by the Secretary of the Navy and Assistant Secretary of the Navy.

Mr. KELLEY. I know that; but the Secretary must of necessity create them through some bureaus?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. These naval districts are operated through you?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If they are operated through you, they are charged one way, but if they are operated through Construction and Repair they are charged in another way.

Mr. REED. The enlisted personnel on board would be paid as they would be on any other floating equipment, and the subsistence would be paid from the same appropriation, but the expenses would be reported in the tables as expenses for the maintenance of shore stations. The expenses that are grouped in this particular classification cover personnel and expenses in connection with craft not specifically and definitely assigned to any particular station. It does not affect the appropriation charge. The appropriation charge would be the same in either case.

Colonel ROOSEVELT. I know that Captain Leutze has been at the supply base at New York lately, and I think he could clear some of these things up.

TYPE OF SHIP COVERED BY "DISTRICT CRAFT."

Captain LEUTZE. Two years ago at the fleet supply base in New York we had 14 coal barges that were attached to the base and were moored there, and we had three self-propelled oil barges. Those barges were under the direction of the commandant of the district. The battleship fleet came in there and wanted a barge for anything, a barge would be sent up alongside. It was not only operated at the base, but for the navy yard, and sometimes we would send them to New London or Rockaway, or wherever they needed vessels of this character. These are boats that are carried on the list under the naval districts, and they are manned by enlisted men, but usually by old-timers who can not go to sea any more.

Mr. KELLEY. The committee would like to have a list of all the craft that come properly under this head and that are not chargeable to navy yards and regular stations.

Admiral COONTZ. You will find that list on page 326, "Ships data book, 1921."

Mr. KELLEY. With the number of men reported?

Admiral COONTZ. On page 326 you will find the list, covering coal barges, fuel oil barges, stevedoring barges, torpedo-testing barges, water barges, floating derricks, ferry boats and launches, ammunition lighters, ash lighters, freight lighters, garbage lighters, pile drivers, tugboats, strict tugs, floating workshops, patrol vessels, and unclassified vessels. Most of this work is, of course, done at navy yards, but how the charges are made is something that Supplies and Accounts must finish.

PERSONNEL, NAME, AND LOCATION OF DISTRICT CRAFT.

Mr. KELLEY. This list shows barge at Boston. Have you gone over that to see whether you need it or not?

Admiral COONTZ. Yes, sir; we have gone over that district fully and have reports. We have reports from all of the districts and have cut out some. For instance, in one place we cut out 10 per cent of the personnel, which means that some craft go. Every district has reported.

Mr. KELLEY. How many men are you asking for these districts?

Captain WILLIAMS. Fifteen hundred men.

Mr. KELLEY. Where do you ask for them?

Captain WILLIAMS. Under shore stations we have now 3,352. The coal barges have not men on board.

Mr. KELLEY. I would like to have you go through this list and make a list of the live stuff.

Captain WILLIAMS. The charges are the same on that basis whether we have men on or not.

Colonel ROOSEVELT. What you would like is a list of the operating coal barges, etc.?

Mr. KELLEY. I want a list of all this which cost \$5,000,000 a year.

Colonel ROOSEVELT. Of course, it will not approximate that this year.

Mr. KELLEY. Of course it will not; but I mean the stuff that comes under this head, the live stuff, of course. You have given me great many places as to where it is going to be, and we do not intend to say, of course, that this should be charged one place and another but you ought to know just which place and you ought to agree among yourselves as to which way it is, because if you do not agree, of course, the patient has a hard road.

Secretary DENBY. That is covered in the shore station item.

Mr. KELLEY. I want you to make out a list of the districts that you will need next year and which appear charged in general against this item of \$5,000,000.

Admiral COONTZ. Very well. Would you care to have the personnel that is attached to it?

Mr. KELLEY. Yes; I think that would be a good thing.

Admiral COONTZ. I would prefer to do it that way.

List of district craft, showing location and personnel attached, Mar. 15, 1922.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale
FIRST NAVAL DISTRICT.				
Coal barges, YC 49, 50, 51, 52, 90, 91, 92, 93, 94, 95, 97, 99, 100, 101, 102, 104, 105, 127, 160, 161, 168, 230, 249, 250, 288, 289, 299, 345, 346, 347, 348, 433, 504, 505, 507, 508, 509, 510, 511, 522, 523, 524, 525, 526, 528, 529, 530, 531, 532, 533, 623, 624, 625, 626.		None.		
Fuel oil barges: YO 3, 13, 15, 20, 30.		None.		
YO 14.		2		

strict craft, showing location and personnel attached, Mar. 15, 1922—Continued.

craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
1. DISTRICT— inued.				
barges, YS 14		None.		
ating barges:				
	Torpedo station	1 55		
	do.	1 28		
es:				
	Boston yard	1		
and 22.		None.		
ricks, YD 9,		None.		
20, 23, 35, 38,				
and launches:				
insett.	Torpedo station	None.		Hustle.
	do.	6		
	do.	3		
	do.	None.		
No. 132.	Portsmouth yard			
No. 1048.	do.	None.		
n lighters:				
17 and No. 23	Boston yard	None.		
30.			Out.	
s:				
	Melville	None.		
	Squantum	None.		
ters:				
78, 79, 80, 81, 82	Boston	None.		
	Portsmouth	None.		
	Newport	None.		
	Torpedo station	1 11		
and 63.	do.	None.		
hter, No. 5.	Boston yard	None.		
YPD. 20.	do.	None.		
s:				
	Boston	11		
ay.	do.	9		
	do.	11		
ok.	Portsmouth yard	9		
Vooley.	do.	9		
	Torpedo station	1 9		
	Melville	None.		
rkshop, No. 15	Boston, laid up	None.		
el, Constance	Boston	None.		
l, coast tor-	Torpedo station	1 11		
, No. 6.				
ges.	Boston	None.		Nos. 9, 10.
AL DISTRICT.				
YC 128, 258,	New York	None.		
577, 595, 599,				
01.				
ge, No. 5.	do.	8		
rge, No. 50.			Loaned New York City.	
barges, Nos.	New York yard	None.		Nos. 40, 46, 50.
and 48.				
p, No. 45.	do.	None.		
ricks:				
	do.	4		
	do.	6		
	do.			
1, 29, 44, and	do.			
and launches,	do.	5		
n lighters:				
8, 20, 32, 33.	Iona Island	1 4		
	New York yard	8		
	do.			

1 charged against shore station, torpedo station.

1 charged against torpedo station.

1 charged against shore station, ordnance.

List of district craft, showing location and personnel attached, Mar. 15, 1922—Continued

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale
THIRD NAVAL DISTRICT—continued.				
Freight lighters:				
YF 1, 7, 92, 93, 94, 95, 96, 107, 112.	New York yard.....			
YF 161.....	do.....	7		
Garbage lighters, YG 1, 2, 9, and 10.	do.....			
Pile driver, YPD 1.....	do.....			
Heating scows, YHT 1, 2, and 3.	do.....	1		
District tugs:				
YT 54.....	New York yard.....	9		Pawnee.
YT 56.....	do.....	9		No. 53.
YT 61.....	do.....	9		No. 55.
YT 67.....	do.....	10		No. 63.
YT 81.....	do.....			No. 74.
YT 72.....	Submarines, New London.	15		No. 84.
Cayuga.....	New York yard.....	11		
Narkeeta.....	do.....	8		
Pentucket.....	do.....	11		
Floating workshops, Nos. 12 and 13.	do.....			
Patrol vessels:			Edithia.....	
Privateer.....	District.....	5		
Sanda.....	Loaned to New York City.			
Unclassified.....			Samocet.....	
Tranfer.....	New York yard.....	6		
Nahant.....	Loaned to New York City.			
FOURTH NAVAL DISTRICT.				
Coal barges: YC 136, 255, 256, 290, 301, 506, 541, 542, 543, 544, 545, 546, 547, 548, 551, 552, 570, 571, 572, 578, 579, 584, and 602.	Philadelphia yard.....	None.		
Fueling barges, Nos. 11 and 12.	do.....	None.		
Fuel oil barge, No. 22.....	do.....	7		
Water barge, No. 34.....	Cape May Air Station.	None.		
Ferryboats and launches			Patchogue.....	
Floating derricks, Nos. 5, 30, and 45.	Philadelphia yard.....	None.		
Ammunition lighters, Nos. 26 and 34.	do.....	None.		
Ash lighters, Nos. 40 and 41.	do.....	None.		
Freight lighters:				
No. 71.....	Cape May.....	None.		
No. 9.....	Philadelphia yard.....	None.		
Pile driver, No. 10.....	do.....	None.		
District tugs:				
Nausett.....	Philadelphia yard.....	8		
Modoc.....	do.....	8		No. 57.
Samocet.....	do.....	8		No. 82.
Floating workshop, YR 10.	do.....			
Unclassified.....				Geo. F. Plon
FIFTH NAVAL DISTRICT.				
Ambulance boats, YH 3.	Tug director.....	3	YH 2.....	
Coal barges, Nos. 261, 262, 263, 264, 265, 266, 267, 268, 270, 271, 272, 273, 282, 284, 286, 291, 293, 295, 303, 305, 310, 313, 317, 318, 319, 354, 431, 432, 434, 459, 486, 488, 501, 502, 276, 461, 462, 471, 474, 473, 476, 480, 481.		None.		Nos. 118, 119, 124.

* Personnel charged shore station, submarines.

istrict craft, showing location and personnel attached, Mar. 15, 1922—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
AL DISTRICT— tinued.				
arges, Nos. 3	.....	None.	.....
rges.....	.....		YO 6; YO 7 (temporarily in sixth district). YO 38 (assigned sixth district).	YO 19.
g barge, YS 12.	.....do.	7		
re, YW 33.	.....do.			YO 31.
rricks, YD 7, 43.	.....do.			
and launches:				
ard.....	Norfolk yard.....	9		
	.....do.		Just arrived from first district.	
on lighter, YE	.....		Repairing.....	
iters:				
7, 74, 91, 113, 118, 121, 123, 6.	Tug director.....	9		
	.....	None.		
				Nos. 53, 58, 59, 60, 61, 69, 90, 109, 76, 83, 114, 137, 138, 139, 99, 101, 102, 103, 104, 106.
, YPD 14.	.....	None.		Tugs Nos. 76, 80, 83 and 47.
es.	Norfolk yard.....	7		
es.	.....do.	7		
oit.	.....do.	6	Bouker No. 2 (loaned to city of Norfolk).	
k.....	.....do.	7		
.....do.	.....do.	7		
oot.....	Tug director.....	7		
ta.....	.....do.	8		
ico.....	Norfolk yard.....	7		
orkshops, YR d 17.	.....	None.		
els.....	.....			Bie & Schlott.
i.....	.....			Chlo.
VAL DISTRICT.				
40, 341, 349, 442, 456, 458, 35.	Charleston yard.....	None.		
9, 213, 335, 338	Marines, Parris Island.	None.		
ge, YCD 7.	Charleston yard.....	None.		
ge, YO 38.	Not yet arrived from fifth district.			
e, YW 9.	Marines, Parris Island.	None.		
errick, YD 1.	Charleston yard.....	None.		
os. 9 and 10.	Navy yard.....	None.		
and launches,	Marines, Parris Island.	None.		
on lighter, YE	Ammunition depot....	None.		
, YA 29.	Navy yard.....	None.		
iters:	.....do.	None.		
.....do.	.....do.	None.		
No. 18.	.....do.	None.		
is, Sebago.	.....do.	6		Tugs, Nos. 46, 79.
orkshops, Nos.	.....do.	None.		
el, Clarinda.	District.....	8	Marlja.....	
VAL DISTRICT.				
150, 151, 209.	.....			No. 232.
10, 43, 494, and	.....	None.		

List of district craft, showing location and personnel attached, Mar. 15, 1922—Contin

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
SEVENTH NAVAL DISTRICT—continued.				
Seaplane barges, Nos. 20 and 59.	.....	None.	.....
Stevedoring barge, No. 67.	.....	None.	.....
Floating derricks, Nos. 17 and 55.	.....	None.	.....
District tugs, Saco.	Naval station, Key West.	9	.....
Water barge, YW 12.	.....	None.	.....
Freight lighter, YF 111.	.....	None.	.....
Pile driver, YPD 19.	.....	None.	.....
Patrol vessel, Zumbrota.	District commandant.	5	.....
EIGHTH NAVAL DISTRICT.				
Coal barges, Nos. 320, 325, 408.	New Orleans.	None.	.....
Stevedoring barges.	.....	.....	.....	YS 69, 70, 7 and 78.
Water barge, YW 28.	.....	None.	.....
Seaplane wrecking derricks, YSD 1 and 2.	Pensacola air station.	None.	.....
Ferryboats and launches, ASP.	Captain yard.	2	.....
District tugs.	.....	.....	.....	Adirondack.
NINTH NAVAL DISTRICT.				
Unclassified.	.....	.....	.....	Abdeck and tella loan Culver MI Academy.
ELEVENTH NAVAL DISTRICT.				
Coal barges:				
Nos. 387 and 388.	At Pichilique.	None.	.....	Nos. 140 and Pichilique
Nos. 220, 235, 244, 277, 297, 308, 309, 312, 360, 362, 365, 366, 367, 368, 387, 388, 392, 393, 231, 275, 281, 314, 316, 466, 469, 470.	San Diego.	None.	.....
Fueling barges, YCD 1 and 2.	do.	None.	.....
Fuel oil barges:				
YO 9.	do.	9	.....
YO 30.	do.	11	.....
YO 23.	Fleet, San Diego.	12	.....
YO 24.	do.	12	.....
Seaplane barges:				
YV 3.	do.	None.	.....
YV 23.	San Diego.	None.	.....
Water barges:				
YW 30.	do.	None.	.....
YW 47.	Pichilique.	None.	.....
Ash lighters:				
YA 42 and 46.	San Diego.	None.	.....
YA 60.	Fleet.	None.	.....
Motor tugs:				
YT 86.	San Diego.	3	.....
YT 88.	Aviation, San Diego.	6	.....
Freight lighter, YF 54.	San Diego.	None.	.....
Garbage lighter, YG 7.	do.	None.	.....
TWELFTH NAVAL DISTRICT.				
Ambulance boat, YH 1.	Training station.	5	.....
Coal barges, Nos. 72, 131, 132, 152, 154, 166, 187, 188, 236, 239, 241, 243, 245, 246, 269, 283, 285, 307, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 311.	Mare Island.	None.	.....	Nos. 73, 15 242.

District craft, showing location and personnel attached, Mar. 15, 1922—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
1st NAVAL DISTRICT.				
arges, YCD 4,	Mare Island.....	None.		
arges, YO 8.....	do.....	do.....		
arge, No. 21.....	do.....	do.....		
ge, YW 16.....	do.....	do.....		
erricks, YD 27.....	do.....	do.....		
M 2.....	do.....	do.....		
s and launches			Admiral Glass.....	
	Training station.....	6		
	Mare Island.....	5		
	Mare Island (fireboat).....	16		
ion lighters,	Ammunition depot.....	None.		
27, and 35.....				
rs, YA 31, 32,	Mare Island.....	do.....		YA 23 and 39.
rs, Nos. 4, 6,	do.....	do.....		
s, YMD 8 and 9	do.....	do.....		
gs:				
lla.....	Mare Island.....	14		
	do.....	14		
ator.....	do.....	14		
naught.....	do.....		Ordered out of commission.	
tugs—				
1. 87.....	do.....			
1. 89.....	do.....			
1. 95.....	do.....	5		
1. 96.....	do.....			
1. 99.....	do.....	5		
1. 94.....	Training station.....	4		
nt.....	do.....	8		
orkshop, YR 5.....	Mare Island.....			Vergana. YF 29.
sels.....				
hter.....				
2d NAVAL DISTRICT.				
s, YC 156, 157,	Puget Sound yard.....	None.		
170, 171, 172,				
191, 192, 193,				
306, 322, 323,				
359, 361, 369,				
372, 373, 374,				
389, 390, 391,				
447, 448, 467,				
396.....				
barges, YO 1.....	do.....	None.		
ge, YW 23.....	do.....	None.		
derricks, YD.....	do.....	None.		
1.....				
on lighters,	Ammunition depot.....	None.		
15, and 16.....				
rs, YA 35 and.....	Puget Sound yard.....	None.		
hters YG 6.....	do.....	None.		
hters, YF 45.....	do.....	None.		
1, 51, 52, 87, 88.....				
pile driver,	Puget Sound yard.....	None.		
gs:				
cket.....	do.....	9		
mo.....	do.....	8		
tug No. 98.....	Torpedo station.....	2		
trol.....			Helori.....	
3d NAVAL DISTRICT.				
s, YC 251, 252,	Naval station, Pearl Harbor.....	None.		
274, 294, 296,				
406, 407, 427,				
477, 641, 642.....				

List of district craft, showing location and personnel attached, March 15, 1922—Continued

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale.
FOURTEENTH NAVAL DISTRICT—continued.				
Fuel-oil barge, YO 21....	Fuel depot.....	6		
Water barges:				
YW 10.....	Naval station.....	3		
YW 15.....	do.....	1		
Floating derricks, YD 25, 53.	do.....	None.		
Ammunition lighter, YE 36.	Now being converted from coal barge.	None.		
Ash lighters, YA 48, 49....	Naval station.....	None.		
Freight lighter, YF 153....	do.....	None.		
Floating pile driver, YPD 16.	do.....	None.		
District tugs:				
Delaware (SP 467)....	Submarines.....	10		
Tug No. 49.....	Naval station.....	7		
Tug No. 50.....	do.....	7		
Motor tug No. 90.....	do.....	3		
Motor tug No. 93.....	do.....	4		
Garbage lighter, YG 11....	do.....	None.		
Torpedo testing barge, YTT 3.	Submarines.....	28		
Unclassified Hermes.....	Aviation.....	None.		
FIFTEENTH NAVAL DISTRICT.				
Fuel-oil barges:				
YO 11.....	Submarines.....	7		
YO 32.....	do.....			
SIXTEENTH NAVAL DISTRICT.				
Coal barges, YC 145, 146, 147, 175, 177, 178, 180, 181, 182, 183, 185, 238.	Naval station, Cavite..	None.		
Water barge, YW 19.....	do.....	10		
Floating derricks, YD 16, 19, 47, 56.	do.....	None.		
Dredge, YM 4.....	do.....	None.		
Ferryboats and launches:				
Callao.....	do.....	23		
Working launch—				
No. 681.....	do.....			
No. 682.....	do.....	6		
No. 683.....	do.....	10		
No. 684.....	do.....	10		
No. 685.....	do.....	10		
No. 687.....	do.....			
Ammunition lighters:				
YE 7.....	Naval magazine.....			
YE 8.....	Naval station, Cavite..	10		
Ash lighters, YA 37, 52, 50	do.....			
Freight lighters, YF 5, 6, 17, 24, 34, 35, 36, 38, 86, 162.	do.....			
Floating pile driver, YPD 17.	do.....			
Mud scows, YMD 1, 2, 4, and 6.	Naval station.....	None.		
District tugs:				
Wompatuck.....	District.....	39		
Banaag.....	do.....	8		
Barcelo.....	do.....	5		
Christine.....	C. in C. tender.....	6		
Iona.....	Naval station.....	6		
Mercedes.....	do.....	5		
Motor tug No. 92.....	do.....	5		
Unclassified:				
Advance base lighters, Nos. 1, 2, 3, and 4.	do.....	None.		
Power floats, Nos. 24 and 25.	do.....	None.		

* Charged against shore station submarines.

* Charged against shore station submarines.

* On temporary duty.

istrict craft, showing location and personnel attached, March 15, 1922—Continued.

OUTSIDE DISTRICT ACTIVITIES.

Craft.	In service.	Comple- ment (enlisted men).	Out of commission.	On sale.
DO STATION, ANDRIA, VA.				
ss:				
66.....		1		
67.....		1		
esting barge,		* 100		
ion lighter No.		* 13		
ssel, Herreshoff		* 13		
L ACADEMY, APOLIS, MD.				
arge, YO 17....		None.		
ge, YW 21.....				
errick, YD 51..				
s and launches,				
ide.				
ers, YA 16, 22,				
ghters, YF 10,				
59, 172.				
ed:				
t Center.....				
TATION, GUAM.				
ge, YW 26.....				
W 5.....				
ghters, YF 42,				
141, 144, 145,				
, 149, 150, 151,				
AL STATION, NTANAMO.				
ss, YC 24, 55, 66,		None.		
, 113, 162, 163,				
, 201, 202, 203,				
, 206, 207, 233,				
, 492, 495, 496,				
, 493, 536.				
arge, YO 2.....		8		
ges:				
3.....				
4.....		8		
8.....		8		
9.....		9		
5.....		9		
ers, YA 25, 27,				
ghters, YF 14,				
183, and 184.				
barge, No. 48...				
pfe driver,				
g Barnett.....			Out commission.	
HAITI.				
Y, YC 200.....				
OVING GROUND, HEAD AND DAHL-				
M 7 and 8.....		None.		
s and launches,		None.		Mary M.
ghters:				
, 65, 66, 73, 133,		None.	Indianhead.....	
136.				
7, 158, 175, 174.		None.	Dahlgren.....	YF 170 and 173.
igs, Triton.....		12	do.	Tugs 77 and 78.

d against shore station under Bureau of Ordnance.

List of district craft, showing location and personnel attached, March 15, 1922—Continued

OUTSIDE DISTRICT ACTIVITIES—Continued.

Craft.	In service.	Complement (enlisted men).	Out of commission.	On sale
SAN DOMINGO.				
Coal barge, YC 300.....				
District tug, Potomac.....		41		
ATLANTIC FLEET.				
Seaplane barge No. 57....				
NAVAL STATION, ST. THOMAS, VIRGIN ISLANDS.				
Water barge, YW 32.....				
Freight lighters, YF 163, 164, 165, 166, 167, and 168.				
NAVAL STATION, SAMOA.				
District tug Fortune.....		28		To be sold.
Floating derrick, No. 34..				
NAVY YARD, WASHINGTON, D. C.				
Coal barges, Nos. 490, 457, 464, 302, and 487.		None.		
Fuel-oil barge, No. 37....		None.		
Ferryboats and launches, Porpoise.		24		
Car floats, YCF 1, 2, 3, 4, 6, 7, 8, 9.		None.		
District tugs				Uncas.
Catawba.....		14		
Mendota.....		21		
Tecumseh.....		13		
Shenandoah.....	Repairing.....	8	Out of commission....	
Unclassified, Grampus.....		8		

* Charged on fleet operative plan.

Mr. KELLEY. You have to do it that way anyhow in order to the total, and then it will clear the whole thing right up and it simplify matters if we include these men for the shore stations. will know, then, that we are not counting them twice.

REDUCTIONS IN BRANCHES OF SERVICE MADE BY NAVY.

Secretary DENBY. We have estimated them, but on the basis 96,000 men, the number needed. Of course, if a heavy cut on some shore stations will be discontinued and so many barges not be needed.

Mr. KELLEY. The cuts you have made are in the little craft Europe, South America, and Asia, and it probably would make—

Secretary DENBY (interposing). You would scarcely call a cut 150 destroyers a little cut.

Mr. KELLEY. But you had made that cut before you came to us Secretary DENBY. The cuts we have made are very, very deep.

Mr. KELLEY. I mean that the cuts you have made are in the small types that are remotely operated.

Secretary DENBY. We have cut out a hospital ship, the *Birmingham*, the *Chester*—

Mr. KELLEY (interposing). I doubt whether you should cut out a hospital ship.

Secretary DENBY. We cut out a hospital ship; we cut five cruisers out; we have cut out a number of ships of military value, and we keep only those—

Mr. KELLEY (interposing). What I mean is that what you have taken out would not materially change this figure.

Captain WILLIAMS. It would not have any effect on it one way or the other.

Admiral COONTZ. It would to this extent, that there would be a number of stations go out of commission.

Captain WILLIAMS. Unless the ships go out of commission it does not affect it; they contain no personnel whatever; the 1,500 we are asking for are men to man objects that contain no personnel on them until we put them on. I think your difficulty is in the understanding of the word "vessel"; most of those are barges loaded with coal to have storage, and they are tied up to a dock with no men on them.

Mr. KELLEY. There is about \$1,000,000 worth of personnel.

Captain WILLIAMS. I can give you the number of men that have been on them and you can estimate how much of that is a personnel charge.

Mr. KELLEY. Suppose you collaborate with Admiral Coontz in putting on the number of men who are on now and the number you want next year, and then we will have the whole thing.

ALLOCATION BY NAVY OF 50,000 MEN FOR SEA DUTY.

Secretary DENBY. I would like to say further, in connection with our statement, that we made these cuts and furnished you this list this morning in answer to a purely hypothetical question.

Mr. KELLEY. Not so hypothetical.

Secretary DENBY. It was hypothetical because you said, "commission certain ships and then see what you can do with the rest." We followed your directions, but this is not what the Navy Department could do if it had more men. We would not distribute the personnel in this way, but we have distributed the personnel according to your specific request. It was purely a hypothetical question, and in answer to that hypothetical question we have given you this statement, and if the Congress gives us this number we will have to determine what to do with them.

Mr. KELLEY. We would not undertake to operate the Navy; that is a certainty.

Secretary DENBY. But that does not mean that we would allocate the personnel as your hypothetical question appears to compel us, but we would allocate it—

Mr. KELLEY (interposing). I do not think anybody has confused the Secretary, Admiral Coontz, or anybody else.

Secretary DENBY. I do not want the Congress to understand that this is what we wish to do—that is, because we have filed a statement

in response to a table that you asked us to make based upon hypothetical things. You said, man the battleships at full complement, man the destroyers at full complement, man the submarines at full complement, and then use the rest of the personnel as best you can. That was purely hypothetical. We did it, but that is not the way the Navy Department, if given 50,000 men, will distribute the men.

Mr. KELLEY. That is a matter for you entirely.

Secretary DENBY. It was a hypothetical question only.

Mr. KELLEY. What we wanted to do was to know what you do with 50,000 men if they were kept in commission and we naturally expect you to keep in commission that part of the force which was of some value for the national defense.

Colonel ROOSEVELT. Which, in your opinion, would, but not in the opinion of the Navy.

Secretary DENBY. You did not give us any option; you gave us a man certain ships.

Mr. KELLEY. There is no question about that.

Secretary DENBY. Your question appears in the record and I will not attempt to repeat it, but I will answer that in a letter this afternoon.

Admiral COONTZ. You want us to take the list on page 326 and opposite each one whether there is any personnel on board and whether personnel is needed for next year. Is that correct?

Mr. KELLEY. I would not say that, but I would like to know the facts are about this \$5,000,000 expenditure charged up to the districts. If those craft are afloat I would like to know how many men are needed for those craft.

Admiral COONTZ. I call on Supplies and Accounts to furnish figures because they spent the money; I never knew about it until they brought it out in this table. A part comes from miscellaneous, a part comes from C. and R.; and a part comes from ever-renewing appropriation. I want them to specifically tell what that money is for, and in the meantime I will go down that list ship by ship and show you whether there is anybody aboard and what is needed for next year. I have what is aboard each one right now but I cannot give you complete data.

Mr. KELLEY. Mr. Byrnes, have you any questions to ask?

Mr. BYRNES. As I understand, you started with a hypothetical question before you, in which the chairman laid down a proposition for manning the battleships, destroyers, and submarines, and with that premise you have distributed the balance of the force. You would distribute them if that were demanded of you, but the contention is that if 50,000 men were allotted you would not use them as you have set forth in this statement at all, but would distribute them in a different manner entirely?

Secretary DENBY. It would be within the province of the Navy Department to do what it could and make the best use of the men; but I did not want the statement to go to Congress that we could man the battleships, destroyers, and submarines with that number

SHIPS OF SERVICE TO BE LEFT OUT BY SUGGESTED ALLOCATION OF
50,000 MEN.

BYRNES. Why do you believe that would be an insufficient number, as indicated by the chairman?

Secretary DENBY. Because it would leave Americans all over the world unprotected, to begin with; it would strike out the Yangtze squadron; it would strike out the special service squadron.

BYRNES. Why? Do you mean you would not have a sufficient number of men left after manning the vessels indicated by the chairman to keep these other ships in commission?

Secretary DENBY. The vessels were indicated by the chairman, together with their auxiliaries; he said to put 18 battleships, 103 destroyers, and 84 submarines in full commission with the necessary tenders and other auxiliaries, and then see what you have left, and use them as far as they will go, but when we had done that we had nothing left for the special service squadron in South and Central America; we have nothing left that would be of service in the Yangtze patrol.

BYRNES. How many did you have left after manning the ships indicated by the chairman?

Secretary DENBY. None whatever.

BYRNES. I have not been over the list carefully, but I thought it had indicated personnel for some other ships than the battleships, destroyers, and submarines.

Secretary DENBY. Oh, yes; but they can not operate without auxiliaries; they have got to have certain auxiliaries in order to make a fighting fleet.

KELLEY. The auxiliaries were provided for?

Secretary DENBY. No; we have cut the auxiliaries all to pieces.

CUT FROM LIST BECAUSE OF SUGGESTED ALLOCATION OF 50,000 MEN.

KELLEY. What have you cut?

Secretary DENBY. We have cut the cargo ships, for instance. We have been reading the list of what we took out. We have one repair ship, for instance, of the utmost value, incalculable value, that is to say we have cut one store ship of very great value; we have cut three destroyers, three cargo ships, and so on.

KELLEY. Let me ask you this question—

Secretary DENBY (interposing). We cut 27 submarines; we have cut the Eagles; we have cut the number of subchasers, and we have cut the number of gunboats.

KELLEY. We know what you have cut.

BYRNES. Was the cutting of the personnel on those ships due to the fact that you have increased the personnel on your battleships and above the complement now upon those ships?

Naval Admiral COONTZ. No.

BYRNES. In allocating the personnel, in response to the request of the chairman, have you increased the personnel upon the battleships over and above the number of men now upon those battleships?

Secretary DENBY. Yes; we have; and we have done so because—

Mr. KELLEY (interposing). In other words, you put 3,000 more men on your battleships than you have now and that 3,000 would more than take care of your Yangtze patrol?

Secretary DENBY. We have followed the chairman's question exactly without the slightest change. He gave us the number of battleships and told us to put a full complement on them, and that is what we had to do.

Mr. KELLEY. What you want to do, Mr. Secretary, is to reduce the number carried on some of these battleships and keep them Yangtze patrols in.

LIMITED COMPLEMENT FOR SHIPS.

Secretary DENBY. I do not think it is possible. I want to say right here that some of our ships to-day are sick ships.

Mr. KELLEY. You say they are sick ships, with 1,100 men on board?

Secretary DENBY. Yes; I mean to say exactly that. You and I are not entirely in a position to controvert the naval men and say they are not telling the truth.

Mr. KELLEY. I can summon naval officers who do not agree as to your number of men necessary on the ships.

Secretary DENBY. I do not think you can summon any competent captain or admiral of the United States Navy who will say that the battleships are overmanned with the figures we ask. I mentioned the other day, while I knew it was unintentional, that this hypothetical question would be referred to on the floor and would be held up as a trap and have the Navy Department saying that with 50,000 men we can man those ships and have a competent Navy.

Mr. KELLEY. Mr. Secretary, the Navy Department wants to keep the fighting ships of the Navy in readiness for war, in case we should have war, and I asked you to put on paper the number of men it would take to keep those ships and their necessary auxiliaries in fighting condition, and according to your judgment it is something like three or four thousand more than you have on them now, and then you come in here this morning and say it is a trap.

Secretary DENBY. Pardon me; I said the other day that quite unintentionally it might be used to confuse the House.

Mr. KELLEY. How could it be considered as a trap?

Secretary DENBY. By simply holding that up and saying, "This is what the Navy Department says it needs," but that is not what the Navy Department says it needs.

Mr. KELLEY. I simply asked you, Mr. Secretary, to segregate all you would never use for defense purposes.

Secretary DENBY. I will read the question.

Mr. KELLEY. I know what the question was, but I am saying it in different language: it is in the record once, and you need not put it in again. I am trying to get your mind clear as to what was in my mind.

Secretary DENBY. I have the question exactly, and all I want to get clear is the hypothetical question, which we have answered to the very best of our ability.

Colonel ROOSEVELT. If I understand what the chairman just said, he said that he requested the Navy Department to furnish a list of

the ships that it considered absolutely necessary for defense, with the complement necessary; was that it, Mr. Chairman?

Secretary DENBY. No; that was not it.

Mr. KELLEY. I told you I wanted to keep the 18 battleships in commission which I have seen in the newspapers are the treaty Navy; that I wanted the 103 destroyers, which are the treaty destroyers; that I wanted the 84 submarines which would properly be retained as the treaty submarines, and all the necessary tenders, oilers, tankers, and all that would naturally go with those, and then this other stuff at the bottom of the list, like subchasers, eagles, and all that, could make pot luck if there were any men left.

ALLOCATION OF 50,000 MEN UPON BASIS OF SHIPS ACTUALLY REQUIRED BY NAVY
IRRESPECTIVE OF TYPE.

Admiral, we had to leave rather abruptly on account of the vote. I rather think it would be helpful, after thinking it over, to the committee to have in addition to the statement which appears in the record in answer to the distribution of the men that I requested last week, a distribution of 50,000 men for the ships of the Navy, using our own judgment entirely as to how they should be distributed.

Admiral COONTZ. Fifty thousand men afloat?

Mr. KELLEY. Yes, sir.

Admiral COONTZ. All right; I will take that message to the Secretary.

Mr. KELLEY. I should like to have Mr. Reed clear up the naval district situation, about which there was some misunderstanding and some difficulty before noon. I presume the better plan would be to put out practically everything that has gone before.

METHOD OF ACCOUNTING NAVAL DISTRICT EXPENDITURES IN CONNECTION WITH DISTRICT CRAFT.

Admiral COONTZ. I would prefer not, because I took the trouble to find these 40 or 50 things that the money is spent for.

Mr. REED. The statement submitted by Admiral Coontz is correct, and all I want to submit in explanation is the reason in general which leads up to the assembly of charges in this way. We assign an accounting number to each ship on the naval list and to each shore naval activity, and wherever any payments are made those charges are shown and the charges against the particular ship or station are assembled in our annual report. For the naval districts there were certain classes of expenditures covering certain floating equipment, barges and lighters, not ships, or yachts, or patrol activities of any kind, certain small activities on shore, and the expenses at district headquarters and various other miscellaneous places to which no specific numbers are assigned, and they were assembled as the expenses of the naval districts. At present those expenses are practically all or the greater part of them are expenses not in connection with the fleet afloat.

Mr. KELLEY. And the four million and some odd spent in 1921 included every expense for the naval district organization?

Mr. REED. That is correct.

Mr. KELLEY. Is there any probability that some of these craft in estimating the personnel might be counted twice?

Mr. REED. Craft carried in this list of barges and lighters is not of such a nature that it could be found in the computation for personnel of the fleet.

Mr. KELLEY. For the navy yards?

Mr. REED. Yes, sir.

Mr. KELLEY. Then, it is possible to put in the hearings a list of the craft assigned to the naval districts that are not assigned to the navy yards?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will do that?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. With the number of men?

Admiral COONTZ. I will be glad to. I will state further, as budget officer, I shall insist that for the expense hereafter these things shall be separately allocated.

Mr. KELLEY. That is the way to do it.

Admiral COONTZ. I think we can do it.

Mr. KELLEY. These small craft are really shore activity craft?

ALLOCATION AND USE OF DISTRICT CRAFT AT NAVAL STATIONS.

Admiral COONTZ. The situation is this: At the big stations like New York, Norfolk and San Francisco we give these craft to the district commandant who in every case, except two or three, is the commandant of the yard. A navy yard gets so many, one if necessary, and so on. When it comes to a big station where we have quite a number and a number of calls we have found that the cheapest and most economical way was to have a sort of pool, so that the district commandant has them all right there. If, for instance, Iona Island, near New York, wants something done, he sends one up. If Fort Hamilton needs one he dishes one out. Hereafter if I want to know exactly how much for what we might call the district proper, which will be very slight, and how much for the tugs, barges, rifle targets, and the thirty-odd things, then, I think, it will be perfectly clear to the committee and distinctly better for us.

Mr. KELLEY. At the navy yards the little boats are carried as a part of the shore establishment?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. If they might carry some water out to a ship, that is just a shore activity and carried as such?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Those men are many times civilians, perhaps mostly?

Admiral COONTZ. Very rarely now. Most of them are bluejackets and the number will be mentioned by Captain Williams when he comes to the shore establishments.

Captain LEUTZE. A tug at a navy yard or a water barge is listed as a ship of the navy, but it is shown under the proper name of the ship in Table 4 of Paymaster General's Report.

Mr. KELLEY. We have now had furnished us by Admiral Coontz a list of all the tugs that are to go with the fleet?

Captain LEUTZE. Yes, sir.

FUNCTIONS OF DISTRICT CRAFT.

Mr. KELLEY. There will be same other tugs, of course, that are attached to the navy yards?

Captain LEUTZE. Yes, sir; harbor work, as they call it.

Mr. KELLEY. Where they serve the yard primarily and not the fleet?

Captain LEUTZE. They serve the yard and also the ships as they come into the yards. For instance, in docking a ship, they may have to use as many as 14 tugs.

Admiral COONTZ. It is primarily yard service; they stay there all the time and do not go to sea.

Mr. KELLEY. The tugs that we have already included in the list are those that go around with the fleet to be used for towing purposes or mine-sweeping purposes?

Admiral COONTZ. Yes, sir; they are the ones that move from place to place. The others are nonseagoing tugs—they never go to sea except in an emergency.

Mr. KELLEY. Are the navy-yard tugs manned by civilians or by enlisted men?

Admiral COONTZ. Enlisted men.

Mr. KELLEY. You are certain about that?

Admiral COONTZ. Absolutely.

Mr. KELLEY. Is there anything else you would like to say about the Navy afloat?

Admiral COONTZ. No, sir; nothing further.

DISTRIBUTION OF NAVAL PERSONNEL ON SHORE DUTY BASED ON COMPLEMENT OF 15,000 FOR THIS PURPOSE.

Mr. KELLEY. Have you a distribution of the Navy ashore?

Captain WILLIAMS. I have a distribution in accordance with your request of the department on Friday to distribute 15,000 men as they could be distributed with 50,000 men afloat and 15,000 men ashore.

Mr. KELLEY. What is the latest date as of which you have a distribution of the shore forces?

Captain WILLIAMS. As they actually existed?

Mr. KELLEY. The last available date.

Captain WILLIAMS. The last complete distribution, January 1 of this year.

MEN ON SHORE DUTY JANUARY 1, 1922.

Mr. KELLEY. Please give us the details of the distribution on January 1.

Captain WILLIAMS. District vessels, 3,429; receiving ships, 1,034; receiving barracks, 676; yards and stations, 2,099; training stations and trade schools, 2,500; hospitals, 1,637; prisons, 100; communications, 1,635; aviation, 2,100; ammunition depots, 602, and recruiting, 900.

Mr. KELLEY. That makes a total of your shore establishments of how many?

Captain WILLIAMS. The numbers I have given are the required numbers.

Mr. KELLEY. Those are the numbers required?

Captain WILLIAMS. The number of men required on January 1.

Mr. KELLEY. Based on a total personnel of 106,000?

Captain WILLIAMS. Yes, sir.

ACTUAL NUMBER REQUIRED FOR SHORE DUTY.

Mr. KELLEY. Can you give us the actual numbers corresponding with those who were in actual service on that date or on any date? Please go right down through the list again.

Captain WILLIAMS. District vessels, 3,352; receiving ships, 124; receiving barracks, 704; yards and stations, 1,208; training stations, 1,589; hospitals, 1,978; prisons, 23; communications, 1,228; aviation, 2,754, plus 52 under instruction; ammunition depots, 605, plus 220 under instruction at ammunition depots; and recruiting, 709.

MEN ON DUTY AT TRADE SCHOOLS AND TRAINING STATIONS.

Mr. KELLEY. What about the trade schools?

Captain WILLIAMS. Instructors, 443, and 1,334 under instruction.

Mr. KELLEY. What about the 1,589 that you gave before?

Captain WILLIAMS. Those are the training stations, that is different.

Mr. KELLEY. How many for the trade schools?

Captain WILLIAMS. Four hundred and forty-three instructors and 1,334 under instruction. On January 1 we had 1,589 operating force at training stations and 3,976 under instruction. We had in addition to that, trade schools in which we had 443 instructors and 1,334 under instruction.

Mr. BYRNES. You did not give the figure of 3,976; what is that for?

Captain WILLIAMS. Apprentice seamen under instruction at training stations as distinguished from men under instruction at trade schools.

Mr. BYRNES. What about the 3,976?

Captain WILLIAMS. They will have to come out if we have a 50,000-man navy.

Mr. KELLEY. I want to get the number of men you actually had in these various activities as of some certain definite date.

Mr. BYRNES. What are the 1,589 that you mentioned?

Captain WILLIAMS. The operating force at the training stations.

Mr. BYRNES. And the 443?

Captain WILLIAMS. The operating force at the trade schools.

Mr. BYRNES. And the 1,334?

Captain WILLIAMS. They are under instruction at the trade schools.

Mr. BYRNES. They should not be in this list?

Captain WILLIAMS. Yes, sir.

Mr. BYRNES. They should be in the list under training stations?

Captain WILLIAMS. No, sir; that is a different figure.

Colonel ROOSEVELT. The trade schools and apprentice seamen are all different people entirely. They overlap, but are not the same personnel.

NUMBER OF MEN IN TRAINING AND THEIR DESIGNATION.

ELLEY. Please give the number in training.

in WILLIAMS. There are several forms, the trade schools, we have machinists and other mechanics. Those are represented by this figure of 1,334. There are training stations where we have men for other activities and those are represented by the figure

ELLEY. What about the 220 men under ammunition depots?

in WILLIAMS. They are certain men specially instructed in mines and mines and ordnance who are carried under this sub-ammunition depots.

ELLEY. Are they men under instruction?

in WILLIAMS. Under instruction; they are men learning the business of the mines and other ordnance gear.

ELLEY. You have 1,589 that are the operating force of the training stations, is that right?

in WILLIAMS. 1,589.

ELLEY. You have 443 that are the operating force of the trade schools?

in WILLIAMS. Right.

ELLEY. Those two together will represent the number of men as instructors and the operating force?

in WILLIAMS. Yes, sir.

ELLEY. That makes 2,032?

in WILLIAMS. Yes, sir.

ELLEY. And the hospitals, how many?

in WILLIAMS. 1,978.

ELLEY. That is the operating force in the hospitals?

in WILLIAMS. Yes, sir.

ELLEY. Are there 2,754 in the operating force of aviation?

in WILLIAMS. Yes, sir.

ELLEY. Take out the 52 there and the 220 out of ammunition depots. Those are the number of students there and the number of that you had in the trade schools that you gave a while ago.

in WILLIAMS. 1,334.

ELLEY. That makes 1,606 under training that are not apprentices.

in WILLIAMS. There is another item carried as miscellaneous, which we have 107 men. That includes War College, Naval Depot, activities in Europe and China, naval attachés, commissions, etc. The total is 15,985.

ELLEY. Following this classification here, 15,985 is the number you had on January 1, 1922?

in WILLIAMS. Yes, sir.

ELLEY. For this particular service?

in WILLIAMS. Yes, sir.

ESTIMATION OF MEN REQUIRED ON SHORE DUTY, BASED UPON NAVY OF 65,000 MEN.

ELLEY. Now, have you made a calculation as to the number that would be required on the basis of 50,000 men afloat?

in WILLIAMS. On the basis of 50,000 men afloat and 15,000 on shore.

Mr. KELLEY. Let us have that under the same items, begin with district vessels.

Captain WILLIAMS. For district vessels, 1,500.

Mr. KELLEY. For receiving ships?

Captain WILLIAMS. Receiving ships and barracks, 750.

Mr. KELLEY. For receiving barracks?

Captain WILLIAMS. I have bunched them together and have for both.

Mr. KELLEY. Training stations and training schools?

Captain WILLIAMS. For training stations I have 280, and for training schools, 500; or 780 altogether.

Mr. KELLEY. Navy yards and stations?

Captain WILLIAMS. 1,100.

Mr. KELLEY. Hospitals?

Captain WILLIAMS. 1,645.

Mr. KELLEY. Prisons?

Captain WILLIAMS. 25.

Mr. KELLEY. Communications?

Captain WILLIAMS. 1,305.

Mr. KELLEY. For aviation?

Captain WILLIAMS. 1,070.

Mr. KELLEY. That does not include any under training?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Ammunition depots?

Captain WILLIAMS. 425.

Mr. KELLEY. For recruiting?

Captain WILLIAMS. 250.

Mr. KELLEY. For miscellaneous?

Captain WILLIAMS. I have not put miscellaneous down.

Mr. KELLEY. It is probably about the same as the other, and carried 170 in the other.

Captain WILLIAMS. We will call it zero, because it is included in others.

Mr. KELLEY. What will that foot up?

Captain WILLIAMS. 10,450. For replacements, 7 per cent of 60 men, or 4,550.

Mr. KELLEY. You have not put down tenders yet, but they are included in the 10,450?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How much were they?

Captain WILLIAMS. 1,600. I am not certain that you got the replacements on the 1st of January.

Mr. KELLEY. How many replacements were there on January 1?

Captain WILLIAMS. 7,833 plus 4,062 in transit.

Mr. KELLEY. That was based on a personnel of how many on January 1?

Captain WILLIAMS. On a personnel of 100,999.

Mr. KELLEY. Did that include apprentice seamen?

Captain WILLIAMS. Yes, sir; that includes everybody.

Mr. KELLEY. What would that be—about 7 per cent?

Captain WILLIAMS. Yes, sir; 7 per cent plus men in transit.

Mr. BYRNES. I want to know whether in the last list of figures you gave me included any men under training?

Captain WILLIAMS. None whatever, except the 500 at trade schools. Mr. BYRNES. Are they under instruction or are they operators of the trade schools?

Captain WILLIAMS. I put down 500 at the trade schools, because we found out we could allot about 500. We will probably use some for instruction and some would be receiving instruction, the total number being 500.

Secretary DENBY. You have not duplicated that anywhere?

Captain WILLIAMS. No, sir.

METHOD OF COMPUTING 7 PER CENT REPLACEMENTS.

Mr. BYRNES. I want to know what you include in replacements here?

Captain WILLIAMS. There are several ways of getting at it.

Mr. BYRNES. Take the shortest.

Captain WILLIAMS. It is a personnel study.

Mr. BYRNES. How do you arrive at the 4,550?

Captain WILLIAMS. I got the 4,550 by taking 7 per cent of the 65,000 allowed. The 4,550 is simply an estimate.

Mr. KELLEY. The 7 per cent is not an estimate, but it is based on our experience of this year, is it not?

Captain WILLIAMS. It is based partially on experience. The 7 per cent is not a fixed percentage, but it varies with the change in the number of the personnel. Every time the number of the personnel is changed the replacement varies from the normal 7 per cent. As an illustration, if you have 100,000 men for this year and on July 1 you change it to 50,000 men, you are still compelled to carry on your hospitals, prisons, etc., a large personnel for the ensuing year. The persons sick or in prison belong to the 100,000 personnel. If you ask how many men there are in the Navy, you must particularly specify at what time, because otherwise you will create misunderstanding. Suppose we say we have 100,000 men in the navy, or you ask how many men there are in the Navy; you must specify the hour and the day that you desire that information, because otherwise it changes by quite an appreciable percentage. If you want that information in that form, you can only get it two or three months later. The next proposition is to take the reports that you receive from all over the world, from the Yangtse River to the Black Sea, and put them together; and a very appreciable percentage of them will be late in the mail.

Therefore, your estimate to-day of the number of men we have in the Navy is based or constructed in two ways: One would be to take an absolute census by radio, say, as of January 1, of this year, taking every report that comes in of deaths, desertions, etc., and applying that to the census. You will find, of course, that there is a difference in those figures, and that difference is very much larger than you would believe. I have a list here of a large group of replacements which, perhaps, might explain the meaning of that word. I have there 11,895 men who might be called replacements. Of that number, so far as we could go into the minute details, 1,642 were on receiving ships. Now, a man's cruise is up day after to-morrow, and the ship sails to-day, and there are two man-days that you have got to look out for, or one man for two days. You can not transfer him

to another ship, but you must get rid of him. We had in hospital 2,258, and of prisoners we had 1,339. We had delayed reports of men in transit, which are difficult to separate at the moment, amounting to 4,062. We have been accustomed from time to time to call the sum of these things a percentage, and 7 per cent is the best estimate we could arrive at. We expect that instead of 7 per cent, it will probably go up to 10 per cent for this reason, that when a large number of men enlist in any one year for four years, at the end of four years, a large number of men will be discharged.

These men will from time to time pass through the different stages, receiving ship, discharge, leave, etc., which will increase that factor of safety due to the unaccountable errors in numbering personnel. We calculate that the percentage of replacements may vary from 7 per cent to as high as 11 per cent, but at the moment we have put it at 7 per cent.

DIFFICULTY OF OBTAINING ACCURATE REPLACEMENTS.

Mr. KELLEY. How do you fix the maximum at 11 per cent, or upon what do you base that?

Captain WILLIAMS. We have had that experience from time to time. These figures are not always capable of abstract mathematical proof. Suppose the report of enlistments on the Pacific coast is lost in the mails. We get it eventually, but, in the meantime, we must carry an error, and a part of that error comes into this item of replacements. In other words, it is impossible with human material as large as this and scattered all over the world to say that on any given date we will have a given number of men actually engaged in a given duty. There are men being discharged, there are men traveling, there are men on one set of books, and there are men on another set of books; there are men dying suddenly, there are men lost, and there are desertions. It is those things that make this percentage, which we call a factor of safety.

Mr. KELLEY. Do you figure that you want replacements for the trade schools and training schools?

Captain WILLIAMS. I do not think that figuring on details of this sort would be very profitable. I think that the figure as to replacements is one which must be applied to the total enlisted personnel of the service. Whether it comes from trade schools, from hospitals, from ships, or from what source, it is a calculation which I do not think would be sufficiently accurate to be of much value. In our final records, in our final census, and in our final application of this personnel we always find this state of affairs. I do not want to bother you with a statement of the efforts that we have made to find out this 7 per cent, but it requires counting and recounting, checking and rechecking, and it is always about that size. If you had a cable census of every man in the Navy at noon to-day, those reports probably would not get here for two days.

EFFECT OF REPLACEMENTS.

Mr. KELLEY. What you are saying is this, that if you had 100,000 men in the Navy, all told, 7 per cent of them would not be available for duty at any particular time; that some of them would be trans-

arriving from one ship to another. Some of them would be waiting on a receiving ship, to go on board; some would be awaiting a receiving ship to be discharged; some would be sick; some would be in a prison, etc., and therefore there would be 7 per cent of the men that would not be working at any particular job for the Government all the time.

Captain WILLIAMS. That is practically correct. I think it would be more accurate to say that there would not be that full number on completed details. None of those men would be working for the Government. A man passing through a receiving ship, for example, might be working for the Government; a man carried among the prisoners might be working for the Government on that day, and a man carried in the hospital might be doing work for the Government. But that is the wastage, and I think experience has shown that that is the best way to carry it in order to keep our details or mathematics correct.

Mr. KELLEY. Then, with 65,000 men, you would need 7 per cent of that number for replacements?

Captain WILLIAMS. I do not think 7 per cent would cover it, but I put it down as 7 per cent. The reason I say that is because in the fiscal year to which this number refers we will have, we will say, 10,000 discharges, and 20,000 of those men will reenlist. That means 10,000 men that must be handled in one way or another from here to here and back again.

Mr. KELLEY. Of course, you have that element in this year's figures and in last year's figures?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Your experience of last year shows that was not the case.

Captain WILLIAMS. No, sir.

NUMBER OF MEN DISCHARGED AND REENLISTED LAST YEAR.

Mr. KELLEY. How many did you discharge and take back last year?

Captain WILLIAMS. Last year was a very peculiar year.

Mr. KELLEY. I remember there were 43,000 men going out, and you expected to get back a large number of them.

Captain WILLIAMS. We started with 120,000, and gave discharges beyond that. That made it impossible to tell how normal conditions were. We had to say to those men, "You can have your discharge when you want it."

Mr. KELLEY. I remember very well that you made the argument last year that the number to be discharged because of their two-year enlistments would be tremendously great, and that the element of doubt as to how many you would get back made it so uncertain that it was a very serious problem for you.

Captain WILLIAMS. The argument was subsequent to the decision, and the decision was based upon the number of discharges.

Mr. KELLEY. You remember that you asked for a tremendous number of apprentice seamen last year, or for twelve or fifteen thousand, but you never had any such number this year, did you?

Captain WILLIAMS. That was my decision as to how many I should have.

Mr. KELLEY. You guessed mighty bad last year.

EFFECT OF SICK UPON REPLACEMENTS.

Referring to this element of replacements, how serious would be if a ship that had 100 men on her lost seven of them?

Captain WILLIAMS. That is not the way it would work.

Mr. KELLEY. No; because it would not work as badly as that.

Captain WILLIAMS. It would not be in any sense proportionate.

Mr. KELLEY. It would not be as many as that.

Captain WILLIAMS. It might be many times that.

Mr. KELLEY. How do you make that out?

Captain WILLIAMS. The replacements include the sick.

Mr. KELLEY. The number of sick in hospitals is a negligible number almost compared with the total number. The entire sick would be only 2 per cent. and you carry the boys around on the ship until they need to be taken ashore. They are pretty sick before you take them to a hospital. If he jams a finger, you take care of him on shipboard until he gets well, but if it comes down to some disease in which you want to put them in a hospital you take them off the ships, and then you have replacements to fill in there.

Captain WILLIAMS. The proportion in any station will be total different from the personnel of the whole.

Mr. KELLEY. The fact is, with these ships sailing about and with their duties covering quite a wide area, if a man gets sick you would not think of replacing him, would you?

Captain WILLIAMS. It depends on how sick he was and how long he was sick.

Mr. KELLEY. If he gets sick for a few days you would not think of replacing him?

Captain WILLIAMS. But suppose he gets sick for two years: then there is a replacement necessary, is there not?

Mr. KELLEY. Yes; but, as I say, the number sick for any length of time is so small that you probably would not bother filling up the places.

Captain WILLIAMS. It is not negligible.

Mr. KELLEY. You have commanded a battleship in your time, have you not?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What ship did you command last?

Captain WILLIAMS. The *Kansas*.

Mr. KELLEY. How many men were on the *Kansas*?

Captain WILLIAMS. We had 100 at one time.

Mr. KELLEY. I mean when she was in full commission.

Captain WILLIAMS. One thousand one hundred.

Mr. KELLEY. How many men would represent the sick on that ship at any time?

Captain WILLIAMS. According to these figures, let us say 25.

Mr. KELLEY. Suppose you had to get along on the *Kansas* 25 men short of your 1,100; you would never know the difference unless somebody put the papers in front of you, would you?

Captain WILLIAMS. But if I had to stay 25 short of the complement for a year I would certainly notice it.

Mr. KELLEY. But, as a matter of fact, you wait until you get into port, you take the thing easy, and if the Secretary wishes to discharge few men, you do not count 25 men when you have a complement of 100?

Colonel ROOSEVELT. But is it not true that if you do not take care of the 7 per cent you automatically reduce the complement 7 per cent all the way through?

Mr. KELLEY. That is what I am saying.

Colonel ROOSEVELT. And if the Navy says that it has a minimum complement that it ought to be operated with, it certainly has not taken into consideration reducing an additional 7 per cent.

Mr. KELLEY. I understand perfectly well that if Admiral Coontz, who is a good officer and wants everything right up to shipshape, is supposed to have 1,200 men on shipboard he does not want 1,175, but what I am saying is that if he had 1,175, unless somebody told him, he would never notice that condition.

Captain WILLIAMS. Why 1,175 when we are talking about 1,130?

Mr. KELLEY. I think that is true, that there would be, between the judgment of you and some other captain that I could easily pick out, more difference than 25 as to how many you need.

Captain WILLIAMS. I certainly hope there would be.

Mr. KELLEY. When I first came here that was a conundrum to me but now it is a commendation, to find officers who do not agree; they do not agree any more than lawyers, doctors or anybody else.

Admiral COONTZ. If it is not one set of them sick it is another, and that is what runs along all the time; somebody is sick all the time, but it is not always a case of those fellows getting well and somebody else getting sick.

Mr. KELLEY. But when they get well they come back.

Captain WILLIAMS. Suppose they do not get well?

Mr. KELLEY. They are not all sick on one ship at one time.

Secretary DENBY. It is something like the turnover in a factory.

Mr. KELLEY. Except that no business in the world has a lot of men lying around waiting for somebody to get sick.

Secretary DENBY. No; but every business man can pick up all the men he needs in normal times to make his replacements. If you ask any factory, where they have quite a number of men employed, how many men they have out of active business and whose places they have to fill, you will find it far exceeds this.

Mr. KELLEY. Captain, you are a good office man as well as a good sailor?

Captain WILLIAMS. No.

Mr. KELLEY. You have an office down here?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Are you carrying 7 per cent or 10 per cent excess in your office force for the purposes of replacement?

Secretary DENBY. We are carrying them in the great Navy.

Mr. KELLEY. No; you have hundreds of men in the offices here to do certain jobs, and I want to know whether you are carrying enough so that you can fill the place of everybody who gets sick or goes away for a few days—do you do that?

Captain WILLIAMS. Those men are grouped in one building.

Mr. KELLEY. Do you do it?

Captain WILLIAMS. No; those men are grouped in one building while the men I speak of are grouped from the reaches of the Yangtze River to the Black Sea, and that is the difference.

Mr. KELLEY. It is all nonsense, Captain, for you to try to make me believe that you put a man on shipboard every time anybody gets sick.

Captain WILLIAMS. No; but we put him on the quota—

Mr. KELLEY (interposing). You do not do anything of the sort.

Captain WILLIAMS. We put him on the quota, and you will find that the personnel laws of Congress for the last hundred years have taken this very figure into account.

Secretary DENBY. I would like to make one statement in regard to replacements. You are talking about the offices here in the department. Of course those replacements are made whenever they are necessary through the civil service.

Mr. KELLEY. Well, Mr. Secretary, you do not get my idea. You have a certain number of clerks in your department, and a certain percentage of them do not show up every day right along, and you leave those places empty for that day, that is all; you do not have another reservoir out of which you can get clerks; you go that much short, and you get along just as well, and you could go another 1 per cent short and get along just as well.

Colonel ROOSEVELT. No; you come to a breaking point there, and also, you take the situation on board ship; we are counting on going short a certain number anyhow; that is what we are counting on, and that has already been taken into our calculations.

Mr. KELLEY. You can trust Admiral Coontz and these men who have duty it is to have every man they need in any kind of an emergency to have the quota high enough so that you can stand, in time of peace, a little shortage of men getting sick now and then.

Colonel ROOSEVELT. Originally they might have had it in that shape but remember we have been hammering down that quota, and we have been working on it to skin it right down, and it is all in consonance with the Secretary's idea to cut down.

Admiral COONTZ. Take the battleships, where we reduce 5 per cent or more right along, take the destroyers with 10 per cent, and add that 7 per cent on, and see where you are getting. The first thing you know you will get 1 man in 6.

Mr. KELLEY. We want the Navy to have enough men to man the fleet; there is no dispute between us on that. I have been hearing about this replacement thing every year for a long time, and the longer it goes the less it impresses me, although I know perfectly well what it is for.

Captain WILLIAMS. It is inherent to deal with human nature as human beings as distinguished from inanimate objects.

Mr. KELLEY. I do not think the Military Establishment in time of peace is so different from every other kind of establishment that you can have a reservoir of men out of which you can draw to fill vacancies that occur from day to day by reason of temporary absence.

Captain WILLIAMS. It is not temporary absence.

Colonel ROOSEVELT. But it depends on where you keep your establishment; in other words, if I have 100 clerks to do the job necessary

ere, I count on having a certain number sick and I have 103, or whatever it may be, so that I can keep the positions running at the same time. I do not have 97 as the figure which enters into my calculation if I am a good business man.

Mr. KELLEY. No; if you are a good business man you do not have an excess of clerks.

Colonel ROOSEVELT. No; not an excess; and I am not saying we have an excess.

Mr. KELLEY. If you are operating a business for the Government then I will admit that you do carry an excess of everything.

Colonel ROOSEVELT. No; not in the Navy Department.

SUBMARINE TENDERS.

Mr. KELLEY. This is all there is to this except the recruiting and the training school end of it?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And we had better take those up in detail when we reach those in the bill.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Because there is no use of going over it twice.

Captain WILLIAMS. You had the shore-base tenders, 1,600 to start with.

Mr. KELLEY. I wonder whether the Secretary has any recommendation to make about those shore-base submarine tenders to-day?

Secretary DENBY. Yes; we have discussed those shore-base submarine tenders very fully; we had a total of 2,009 and we cut out 400.

Mr. KELLEY. Making a total of about \$1,600?

Secretary DENBY. Yes, sir.

Mr. KELLEY. Three thousand four hundred and eighty-two people to take care of boats that will require only 2,590 to operate them, when Admiral Robinson says that the orders are in the department that they should be operated only 20 per cent of the time. Is that right?

Admiral COONTZ. That is not correct.

Mr. KELLEY. When you have plenty of money that does not hold?

Admiral COONTZ. Captain Day says that does not hold for the submarines.

Mr. KELLEY. That is what Admiral Robinson said about the submarines the other day.

Admiral COONTZ. I think Admiral Robinson was talking about something else.

The CHAIRMAN. What happens to the submarine tender in time of war: where do the submarines get their supplies?

Captain DAY. The submarine tender goes to some safe anchorage and acts as the advance base from which the submarines can operate. In the late war we sent one to an Irish port and one went to the Azores and the submarines operated from there.

SUBMARINE PERSONNEL.

Mr. KELLEY. The only thing that I had in mind was this, that with the testimony here to the effect, generally speaking, that the submarine business is so difficult and hard on the men that you

find it inexpedient to keep them out much more than one-fifth of the time; why could not the crews with the greater complement of skilled men we have during the other four-fifths of the time, take care of the submarines?

Captain DAY. They do not stay in four-fifths of the time.

Mr. KELLEY. Why can not you keep them in?

Captain DAY. We can keep them in all the time if necessary.

Mr. KELLEY. If you do not need them in time of war, why need them in time of peace?

Captain DAY. The crews of the submarines do a large portion of their own repairs.

Mr. KELLEY. How can you say that when you have 3,482 extra men, almost? You have 133½ per cent of the men operating the craft.

Captain DAY. Going to the foreign service again, that is 66½ per cent better than they did.

Colonel ROOSEVELT. Just a parallel. The same sort of a situation arose as to the aircraft. The number of people you have flying is disproportionate to the number of people on the ground. It comes under the same category.

Mr. KELLEY. It would be more like an automobile?

Colonel ROOSEVELT. What I mean is that it is more in that category; its explanation is along the same line.

OPERATION OF SUBMARINES AND CREWS TO KEEP UP EFFICIENCY.

Mr. FRENCH. The other day it was brought out that the submarine was a type of craft that needed to be used very largely in order to keep fit at all, that it would deteriorate much more readily if it were not used than if used. I was wondering what your experience has shown as being the amount of use that would attain the perfect machine without waste of use, using it too much?

Captain DAY. That is a very difficult question to answer. It differs with each submarine as it does with each automobile. Some machines require going into the garage three times a month and some do not go in for two years. Roughly, a submarine should be operated once a week in order to keep the machinery in condition.

Mr. FRENCH. How long should it be operated, what particular time?

Captain DAY. That depends on the circumstances surrounding the case. Say, from 2 hours to 12 hours.

Secretary DENBY. That is for the machine. The man has to be trained as well, and trained in a great variety of evolutions.

Mr. FRENCH. Of course, their training is going on with the handling of the machine?

Captain DAY. Not in this mechanical condition, not training the crew.

Mr. FRENCH. What is your idea, to run the submarines the minimum amount of time so as to attain the maximum efficiency on the part of both the crew and the machine?

Captain DAY. No, sir. The training of the crew is quite a different matter. They are getting all the training they can get. For instance, last summer they were running five days a week for four months in succession and they became very efficient both mechanically and in the skill of their crew.

PERSONNEL OF DISTRICT CRAFT.

Mr. KELLEY. How did you arrive at the number on the district vessels? There is quite an item of 1,500 men that are independent of the navy yards and stations.

Captain WILLIAMS. Of course, all of these figures are very tentative. We first took the 1,500 and then the navy yards and stations—

Mr. KELLEY (interposing). Just stick to the naval vessels.

Captain WILLIAMS. We simply used a fair proportion of the 15,000 as the ratio of the number required up to 100,000.

Mr. KELLEY. Just a good fair estimate?

Captain WILLIAMS. A fair estimate.

Mr. KELLEY. Based on experience?

Captain WILLIAMS. Based on experience; that is about it.

Mr. KELLEY. All the districts are operated by the navy yard commandants except one or two?

Captain WILLIAMS. Yes, sir.

Admiral COONTZ. Two.

Mr. KELLEY. So that outside of those two districts we would not need to carry this as a special item?

Captain WILLIAMS. I prefer to take it up in this way.

SEGREGATION OF DISTRICT CRAFT BETWEEN NAVAL YARDS AND NAVAL DISTRICTS.

Mr. KELLEY. Let us see what we are getting at. In those cases where the commandant of the yard is the commandant of the station you do not make any attempt to separate the vessels that belong to the district and those that belong to the yard?

Captain WILLIAMS. I think the misunderstanding in the whole thing comes from the word "vessels." Most of these things are not vessels, they are craft.

Mr. KELLEY. They are tugs, barges, and lighters. If the commandant of the yard is also the commandant of the district, then you do not attempt to segregate and attach some of them to the district office and some to the yard office?

Colonel ROOSEVELT. Yes; we do.

Mr. KELLEY. How could you do that?

Admiral COONTZ. The commandant of the district is also the commandant of the yard in the case of the third naval district. Under that comes the navy yard, Fort LaFayette, Iona Island, the supply base, New London, Conn., and all the various activities that are in that geographical area. He is the man who assigns the barges and he sends the oil lighters and everything. If we stopped the man in San Francisco or at Hampton Roads it would make no difference whatever. It might make a difference of maybe 20 men. Take San Francisco with Mare Island 30 miles away and with another of the places 200 or 300 miles away, he handles everything there. At Hampton Roads, having the great base there, as well as the navy yard 12 miles away, the ammunition depot, air station, the submarine base, and everything there, this man is the head of the whole job. I do not hesitate to tell you that when I want to make a cut I do not send to the navy yard. I send to Admiral Rodman and he looks over the whole situation; he has personal information, and he writes me to

cut out here or there or elsewhere. The same in the two districts where I have commandants. It is just like when we decided to make a cut of 10 per cent, I sent to the commandant of the whole district and he wrote back to me and said cut out here and here.

Mr. KELLEY. Admiral Rodman is stationed at Hampton Roads?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. He has charge of all this kind of craft that belongs to the Government on the Atlantic coast between certain points?

Admiral COONTZ. Yes, sir; the craft under the Navy Department.

Mr. KELLEY. Including the yard at Norfolk?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. The 1,500 men you are asking for here, a portion of them are to be assigned to those craft?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And if Norfolk wants one of those tugs or launches or whatever it may be, Admiral Rodman sends one down there with the men aboard?

Admiral COONTZ. Admiral Rodman assigns them.

Mr. KELLEY. And he furnishes the men?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. So that yard itself would not have to put any men on the craft?

Admiral COONTZ. The situation would be this: He assigns a tug to the navy yard and it may stay there nine months.

Mr. KELLEY. Who supplies the men? Do the 1,500 men man all the necessary craft under his jurisdiction?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. There is nothing of a similar character in any navy yard in his district?

Admiral COONTZ. That is correct. When he sends the tug to the navy yard he puts the men on it.

METHOD OF COMPUTING PERSONNEL FOR DISTRICT CRAFT.

Mr. KELLEY. Have you included in this list for the navy yards and stations anything for lighters or barges that Admiral Rodman has charge of?

Captain WILLIAMS. We are making an estimate for 1,500 on district vessels.

Mr. KELLEY. I am talking of the principle.

Captain WILLIAMS. I know. I want to show you how we got this. The 1,500 is marked here for district vessels. When you come to the navy yards and stations this 1,100—

Mr. KELLEY (interposing). What I am getting at is this: If Admiral Rodman sends the necessary barges, coal barges and other craft of that kind, down to the yard whenever they want them with the men—

Captain WILLIAMS (interposing). That is a different proposition.

Mr. KELLEY. I thought that Admiral Coontz said that all of these lighters and barges and small tugs that would be operated around the navy yards were under the control of the commandant of the naval district. They used to be under the control of the navy yards, but in order to economize he centered the handling of those in the

Captain PINNEY. We have a great deal of proving work that will have to continue. It will have to go on for some time.

Mr. KELLEY. You will have to use the men just the same?

Captain PINNEY. We will have to use that many down at the proving ground constantly.

Mr. KELLEY. What for?

Captain PINNEY. For the transportation of material and supplies.

Mr. KELLEY. To what place?

Captain PINNEY. To the proving ground.

Mr. KELLEY. Do you mean new guns?

Captain PINNEY. I mean guns that must be proved in connection with the program that is to be continued.

Mr. KELLEY. If you needed only 200 for all of this great program, you would not need 200 simply to finish up the guns for the 10 scout cruisers.

Captain PINNEY. Those activities should be continued.

Mr. KELLEY. They will be continued if we do not discontinue them, but we want to know whether there is any necessity for it. If you discontinue the activity, why keep the men?

Secretary DENBY. You must reline guns and replace guns.

Mr. KELLEY. But not soon.

Secretary DENBY. We have to have target practice.

Mr. KELLEY. You may have to have the old establishment kept up, and you have the old establishment just as you have had it for years. You were arranging for that, but now you are arranging for a fully expanded establishment. Do you know how many of these there were in Washington at any particular date?

Captain PINNEY. No, sir.

Secretary DENBY. I want to say that this matter of the Washington Yard complement needed for this purpose is under constant study and will be reduced from time to time when it is possible to do so.

Mr. KELLEY. Have you any enlisted men now in the department?

Mr. WILLIAMS. Yes, sir; we have. May I tell you why?

Mr. KELLEY. Yes.

Mr. WILLIAMS. It is because in 1919 we started to require these or these exact figures. We had to look out for the replacement; we had to give clear specific details in regard to marines, a pretty large job. We started the statistical branch in order to get those figures right. We had no sooner started than when they cut our clerical force in the Bureau of Statistics 25 per cent, without warning. We lost our statistical branch went overboard. We would not order more; we refused to order a single one of them; the Bureau did not sanction it, and we did not believe in it.

Along somehow, and, perhaps, we are stumbling now, we are facing the question of estimating what appropriation we need for transportation and recruiting for that year. It is necessary to find out how many men would be discharged from the service, how many clerks from everybody, until they were asked to reenlist. Finally we got a few enlisted men to help us in the work of transportation and recruiting. We made an appropriation for transportation and recruiting, and it has turned

Mr. KELLEY. I should like to get an estimate of the number they would need.

Captain WILLIAMS. Eighty of them at Cavite.

Mr. KELLEY. That is too far away. Take the navy yard at Philadelphia; how many men have you there?

Captain WILLIAMS. We have cut Philadelphia out.

Mr. KELLEY. How many at the Norfolk Navy Yard?

Captain WILLIAMS. Sixty-seven.

Mr. KELLEY. What will they use the 67 for?

Colonel ROOSEVELT. The commissary store.

Captain WILLIAMS. The commissary store proposition and activities of that sort.

Mr. KELLEY. That is not a large number, only 56 for a big station like that. Where are the most of the 1,100?

Captain WILLIAMS. The largest one we have is Guam, where have 50 insular and 50 regulars.

Mr. KELLEY. That is all right; it is a good ways away. Well?

Captain WILLIAMS. St. Thomas, 15; Pearl Harbor, 60; New Orleans, 18; Key West, 15; Guantanamo, 56.

Mr. KELLEY. How many marines have you at Guantanamo?

Captain WILLIAMS. I do not know. I do not keep track of that; I want to call your attention to the fact that this does not include of the hospital force. I will explain that later. These are all out of the hospital force: 67 at Norfolk, 32 at Portsmouth, 200 at Annapolis, 229 at Washington.

DUTIES OF DISTRICT CRAFT ENLISTED MEN AT WASHINGTON, D. C.

Mr. KELLEY. What are 229 enlisted men doing in Washington?

Captain WILLIAMS. The 229 men in Washington are running craft that do not belong in any naval district. They represent district craft in this peculiar situation in Washington.

Mr. KELLEY. Do the 200 include those on the *Mayflower*?

Captain WILLIAMS. No, sir. They are on stations like Indian Dahlgren and things of that sort.

Mr. KELLEY. Are the 200 men on boats?

Captain WILLIAMS. No; not all of them. Washington is an nance yard, and doubtless some of the men are down there. I am not prepared to specify that.

Mr. KELLEY. I did not think it was the policy of the Department to have enlisted men in the shops.

Captain WILLIAMS. It is not, but there are certain very scattered activities that only enlisted men in the Navy can handle.

Mr. KELLEY. Who knows what these 200 men are doing at Washington?

Captain PINNEY. Captain Williams's statement that most of them are working in connection with the traffic on the river, between Washington and Dahlgren and Quantico, and even down as far as Norfolk, is correct.

Mr. KELLEY. Taking new guns down the river?

Captain PINNEY. Yes, sir.

Mr. KELLEY. Now, that the program is ended for those guns, will you do with these men?

ptain PINNEY. We have a great deal of proving work that will to continue. It will have to go on for some time.

. KELLEY. You will have to use the men just the same?

ptain PINNEY. We will have to use that many down at the proving ground constantly.

. KELLEY. What for?

ptain PINNEY. For the transportation of material and supplies.

. KELLEY. To what place?

ptain PINNEY. To the proving ground.

. KELLEY. Do you mean new guns?

ptain PINNEY. I mean guns that must be proved in connection the program that is to be continued.

. KELLEY. If you needed only 200 for all of this great program, would not need 200 simply to finish up the guns for the 10 scout ers.

ptain PINNEY. Those activities should be continued.

. KELLEY. They will be continued if we do not discontinue them, we want to know whether there is any necessity for it. If you ntinue the activity, why keep the men?

cretary DENBY. You must reline guns and replace guns.

. KELLEY. But not soon.

cretary DENBY. We have to have target practice.

. KELLEY. You may have to have the old establishment kept up, you have the old establishment just as you have had it for years. were arranging for that, but now you are arranging for a y expanded establishment. Do you know how many of these there were in Washington at any particular date?

ptain PINNEY. No, sir.

cretary DENBY. I want to say that this matter of the Wash-on Yard complement needed for this purpose is under constant iny and will be reduced from time to time when it is possible duce it.

. KELLEY. Have you any enlisted men now in the department?

ptain WILLIAMS. Yes, sir; we have. May I tell you why?

. KELLEY. Yes.

ptain WILLIAMS. It is because in 1919 we started to require these stics, or these exact figures. We had to look out for the replace-s. We had to give clear specific details in regard to marines, it was a pretty large job. We started the statistical branch he purpose of getting those figures right. We had no sooner rtaken that when they cut our clerical force in the Bureau of gation 47 per cent, without warning. We lost our statistical ch. The statistical branch went overboard. We would not order enlisted men; we refused to order a single one of them; the etary would not sanction it, and we did not believe in it.

e stumbled along somehow, and, perhaps, we are stumbling now, it came to the question of estimating what appropriation ld be made for transportation and recruiting for that year.

made it necessary to find out how many men would be dis- red. We borrowed clerks from everybody, until they were ask- or them back, and finally we got a few enlisted men to help us aking our estimates of transportation and recruiting. We made estimates of transportation and recruiting, and it has turned

out to be right, but we did not get the money. We got only one-half of it.

Colonel ROOSEVELT. Where is the navy yard band carried?

Captain WILLIAMS. At the navy yard.

These 200 men may be at the Washington Navy Yard or may not be. In making our estimate of the total we have largely based it on the number of men that have been found necessary in the past, when this number of 65,000 goes into effect.

Mr. KELLEY. You will not continue any enlisted men in the Bureau of Navigation, will you?

Captain WILLIAMS. I hope not.

RADIO SERVICE.

Mr. KELLEY. Communication has gotten to be quite a business. You have 1,305 men for the radio service. How old is the radio business in the Navy?

Captain BRYANT. It started in 1903.

Mr. KELLEY. How many did you have in 1905?

Captain BRYANT. There was no radio service established until 1912.

Mr. KELLEY. It began in 1912?

Captain BRYANT. Yes, sir.

Mr. KELLEY. To how many men had it grown when the war came on?

Captain BRYANT. I was not here then and I can not give you that number. I can furnish it for the record, however.

Mr. KELLEY. Put in the record a statement showing how many men were engaged in the radio service on July 1, 1916?

Captain BRYANT. I will do so.

NOTE.—Number of enlisted men engaged in the radio service July 1, 1916—950, of which number 442 were on shore. I should like to add, however, that when the radio service was changed to the Naval Communication Service in 1917 a number of activities (all of which logically fell under the category of communication facilities) were added and the number of personnel employed was consequently very considerably increased. The activities originally under the radio service were confined to radio only. The communication service as at present organized has cognizance of naval communications carried on by means of telegraph, telephone, cable, radiotelegraph, radiotelephone, radio compass, visual and underwater signals, and sound telegraphs, pigeons, couriers, and postal service. It also has cognizance of the operation of such naval communication systems as may be authorized by law to carry on commercial business.

Mr. KELLEY. How many men were attached to this service on the latest available date you have?

Captain BRYANT. On shore?

Mr. KELLEY. Yes; on shore.

Captain BRYANT. On January 31, 1922, there were 1,301 enlisted men actually at shore stations, but the number required to man the stations properly for efficient operation on this date is 1,599.

Mr. KELLEY. How many civilians are employed in connection with the radio service?

Captain BRYANT. I am speaking of the operation end of it. The Bureau of Engineering, under Admiral Robison, can give you the number of civilians in the mechanical end of it. However, I can put the total number in the communication service (which includes the radio service) in the record.

r. KELLEY. The mechanics are civilians?

aptain BRYANT. Most of the mechanics are civilians in the navy where the major radio repairs are made. We carry some civilians, of course, here at headquarters. There are very few civilians at the outlying stations which are connected with the operating department of the communication service so far as the radio features concerned.

r. KELLEY. So that, generally speaking, the civilians are employed down here at the navy yard?

aptain BRYANT. Yes, sir; the civilian mechanics are mostly at the various navy yards.

r. KELLEY. And not at the various stations throughout the country where you are operating?

aptain BRYANT. No, sir; all of our radio operators are enlisted personnel.

r. KELLEY. Do they make repairs when anything goes wrong?

aptain BRYANT. Yes, sir; except in special cases.

r. KELLEY. Suppose something goes wrong over here at Arlington— who would fix it?

aptain BRYANT. The station crew up to a certain point, unless there was something that required outside assistance.

r. KELLEY. They are enlisted men at the station?

aptain BRYANT. Yes, sir.

r. KELLEY. Where do they live?

aptain BRYANT. Right at the station.

r. KELLEY. Do they have barracks over there?

aptain BRYANT. They have barracks right on the grounds.

r. KELLEY. How many men are at Arlington station?

aptain BRYANT. There are 13 there now.

RADIO STATIONS AND THEIR COMPLEMENTS.

r. KELLEY. I wish you would begin on the coast of Maine and give us a list of the radio stations right down the coast, stating the number of men at each station.

aptain BRYANT. We will start with the first district at Bar Harbor where we have 5; at Portsmouth, 1; at Portland, 3; at Otter Cliff, 77—

r. KELLEY (interposing). Where is Otter Cliffs?

aptain BRYANT. That is the main trans-Atlantic and transcontinental receiving station.

r. KELLEY. Where is it located?

aptain BRYANT. Near Bar Harbor. At Newport there are 11.

r. KELLEY. Have you any marines at these places?

aptain BRYANT. There are 12 marines at Otter Cliffs.

r. KELLEY. Give the number of marines at each place.

aptain BRYANT. San Diego, 12, and Otter Cliffs, 12, are the only places where we have marines in the United States. To continue as far as the number of enlisted men, we have at Newport, for receiving and transmitting, 16. There are 13 light vessels in the first district, and there is a total of 2 operators on board these 13 light vessels. These operators are on the Nantucket Shoals light vessels. At Chatham there are 5 men; at Boston, including the whole Boston system, 23;

at the radio compass station in the first naval district, we have Chatham, 4; at Deer Island, 5; at Fourth Cliff, 5; at Gloucester at North Truro, 5; at Bar Harbor, 4; at Portland, 3; at Prides Cove, 5; at Surfside, 5. These radio compass stations are used for giving vessels off the coast positions, directions, or bearings from their particular locations, so as to enable the vessels in foggy weather or in weather to reach aids to navigation in safety.

Mr. KELLEY. Those stations are in the first district?

Captain BRYANT. Yes, sir.

Mr. KELLEY. Now take up the second district.

Captain BRYANT. We have divided up the second district so that part of it is the third district and part the first. There is no third district. There are four light vessels in the third district, on which there are 2 operators altogether: at the New York communication office and control there are 30; at Sayville there are 13. On the *Privateer* 1 is the complement; but there is no one on it. The 4 compass stations, as follows: At Amagansett there are 4; at Amagansett Island, 6; at Mantoloking, 6; at Sandy Hook, 5; and at New York compass control, 5.

Mr. KELLEY. That brings you down as far as what point of the Atlantic?

Captain BRYANT. To the fourth district. The first station in the fourth district is Cape May.

Mr. KELLEY. In New Jersey?

Captain BRYANT. Yes, sir; there are 6 men at the Cape May station. There are 5 light vessels in that district, but with no operators on any of them. At the navy yard station at Philadelphia there are 8. There are 4 compass stations, as follows: Bethany, where we have 2 men; Cape Henlopen, where we have 8; Cape Henlopen, where we have 5; and the Lakehurst Station, where there are 5. The Washington system includes Annapolis, the Navy Department station, Arlington, and the navy yard station and the Bureau of Standards.

Mr. KELLEY. How many men do you have at Arlington?

Captain BRYANT. Thirteen.

Mr. KELLEY. Where are the rest?

Captain BRYANT. There are 32 at the central control station at the Navy Department, 21 at the Annapolis high-powered station, 1 at the Bureau of Standards, and 2 at the navy yard.

Mr. KELLEY. The central control station has charge of all the business?

Captain BRYANT. They control all the high-powered stations along the Atlantic coast and the local stations for the coast work, down the coast.

Mr. KELLEY. That is to say, every station gets its instructions from this central bureau in the department?

Captain BRYANT. Yes, sir.

Mr. KELLEY. That is the clerical end of it, is it not?

Captain BRYANT. That is the operating end of it. They are the operators, and they actually operate the system from the central office. From here they operate the stations at Annapolis, at Sandy Hook, and at Arlington.

Mr. KELLEY. You mean just as Admiral Coontz operates the

ain BRYANT. No, sir; the key is here. The operator here at the central control operates the Annapolis station, Arlington station, the Sayville station. He transmits the messages while sitting here.

number of men at the Naval Academy station is zero. I am giving you the actual number of enlisted men at these stations.

KELLEY. At this present moment?

ain BRYANT. Yes. At Indianhead there are two.

KELLEY. That is in the Washington district?

ain BRYANT. Yes, sir. The fifth district begins at Baltimore, there are 3 men at the Baltimore station. At Cape Hatteras there are 6; at the communication base at Yorktown there was 1, but it has been eliminated. There are three light vessels, with 1 man on each, making a total of 3 on light vessels. They are the Lookout, Diamond Shoals, and Cape Charles. At Morehead City there are 5. For the Norfolk system there are 31. That station controls all of the communications for the fifth district. There are 25 of them at the operating base control station; 6 of them at the navy yard station at Norfolk. In addition to these 31, there are 3 at the Virginia Beach radio station.

For the compass stations the men are located as follows: At Cape Charles, 4; at Cape Lookout, 4; at Hog Island, 5; at Poyners Hill, 4; at Virginia Beach, 5. The next is the Sixth District, and at Charleston Control Station there are 22 men. This includes the receiving and transmitting stations here. There are four light vessels and one relief light vessel in that district, with no men on board any of them. At Savannah there are three. There are three compass stations, one at each of the following places: Folly Beach, North Island, and Tybee Island. There are six men at Folly Beach, six at North Island, and none at Tybee Island.

KELLEY. That takes you down to what point on the Atlantic?

ain BRYANT. That takes us down to the Seventh District, the most northerly station in that district.

KELLEY. You may put in the record a statement covering the status of the personnel. I simply want to get a general idea as to how they are distributed.

Status of communication personnel on shore as of Jan. 31, 1922.

Activity.	Allowed.	On board.	Activity.	Allowed.	On board.
Radio and communication base office.....	16	16	L. V. No. 90, South Shoals ¹	1	0
Radio base office.....	2	1	L. V. No. 5, Stonehorse Shoals ¹	1	0
Radio base office.....	5	6	Newport (Melville).....	5	5
Radio base office.....	5	5	Newport (control).....	16	11
10, Cross Rip ¹	1	0	Bar Harbor (Otter Cliff).....	90	77
4, Boston ¹	1	0	Portland ¹	5	3
9, Brenton Reef ¹	1	0	Portsmouth.....	5	1
66, Great Round.....	1	0	Bar Harbor (sea wall).....	6	5
3, Handkerchief.....	1	0	Chatham (compass).....	4	4
2, Hen and Chicken.....	1	0	Deer Island (compass).....	5	5
1, 85, Nantucket.....	4	2	Fourth Cliff (compass).....	5	5
17, Pollock Rip ¹	1	0	Gloucester (compass).....	4	5
73, Pollock Rip.....	1	0	North Truro (compass).....	6	5
4, Portland ¹	1	0	Bar Harbor (compass).....	4	4
6, Relief ¹	1	0	Portland (compass) ¹	4	3
			Prices Neck (compass).....	5	5
			Surfside (compass).....	5	5
			First district, total.....	213	173

to be closed if only 1,305 men are allowed for communications on shore.

Status of communication personnel on shore as of Jan. 31, 1922—Continued.

Activity.	Allowed.	On board.	Activity.	Allowed.	On board.
Amagansett.....	5	5	Jupiter.....	7	
L. V. No. 87, Ambrose Chan- nel ¹	1	1	Key West control.....	15	
L. V. No. 48, Cornfield Reef ¹	1	0	Key West transmitter.....	5	
L. V. No. 69, Fire Island ¹	1	1	Miami ¹	10	
L. V. No. 11, Scotland ¹	1	0	St. Augustine ¹	6	
New York communication office.....	6	7	St. Petersburg ¹	6	
New York compass control.....	5	5	Jupiter (compass).....	4	
New York radio control.....	14	10	Key West (compass) ¹	5	
New York D. C. S. office.....	6	4	Seventh district total.....	58	
New York transmitter.....	4	4	Galveston ¹	5	
Sayville.....	16	13	L. V. No. 81, Heald Bank ¹	1	
Yacht Privateer ¹	1	0	L. V. No. 102, South Pass ¹	1	
Amagansett (compass).....	4	4	Mobile ¹	4	
Fire Island (compass).....	6	6	New Orleans.....	22	
Mantoloking (compass).....	6	6	Pensacola.....	4	
Sandy Hook (compass).....	5	5	Point Isabel.....	25	
Third district, total.....	82	71	Port Arthur.....	5	
Cape May ¹	6	6	Burwood (compass).....	7	
L. V. No. 52, Fenwick Island ¹	1	0	Grand Isle (compass) ¹	5	
L. V. No. 79, Five Fathom Bank ¹	1	0	Pas A Lute (compass) ¹	5	
L. V. No. 44, Northeast End ¹	1	0	Eighth district total.....	84	
L. V. No. 69, Overfalls ¹	1	0	Alpena, Mich. ¹	5	
L. V. No. 91, Winter Quarter ¹	1	0	Buffalo, N. Y. ¹	4	
Navy yard, Philadelphia.....	7	8	Chicago, Ill. ¹	4	
Bethany Beach (compass).....	4	2	Cleveland, Ohio ¹	10	
Cape Henlopen (compass).....	7	8	Detroit, Mich. ¹	5	
Cape May (compass).....	6	5	Eagle Harbor, Mich. ¹	4	
Lakehurst (compass) ¹	4	0	Great Lakes, Ill. ¹	9	
Fourth district total.....	39	29	Mackinac Island ¹	2	
Annapolis high-power.....	24	21	Manistique, Mich. ¹	4	
Indianhead.....	4	2	Milwaukee, Wis. ¹	4	
Bureau of Standards.....	1	1	Office of D. C. S., Great Lakes ¹	2	
Navy Department station.....	41	32	Whitefish Point ¹	5	
Naval Academy ¹	4	0	Detour Point (compass) ¹	17	
Navy yard, Washington.....	2	2	Grande Marais (compass) ¹		
Arlington, Va.....	13	13	Whitefish Point (compass) ¹		
Washington district to- tal.....	89	71	Ninth district total.....	79	
Baltimore ¹	4	3	Chollas Heights.....	12	
Cape Hatteras.....	6	6	Inglewood.....	4	
Base Two, Yorktown, Va. ¹	1	1	North Island (control).....	27	
L. V. No. 8, Cape Lookout ¹	1	1	Point Loma.....	4	
L. V. No. 72, Diamond Shoals ¹	3	1	San Pedro (control).....	26	
L. V. No. 101, Cape Charles ¹	1	1	Imperial Beach (compass).....	5	
Morehead City.....	5	5	Point Arguello (compass).....	7	
Navy yard, Norfolk.....	5	5	Point Heuneme (compass).....	6	
Norfolk, control (operating base).....	30	25	Point Fermin (compass).....	4	
Virginia Beach ¹	5	3	Point Loma (compass).....	4	
Cape Hatteras (compass).....	5	4	Eleventh district total.....	99	
Cape Lookout (compass).....	5	4	Eureka ¹	6	
Hog Island (compass).....	5	5	Mare Island high power.....	5	
Poyners Hill (compass).....	5	4	Mare Island low power.....	5	
Virginia Beach (compass).....	5	5	Office of D. C. S., twelfth district.....	1	
Fifth district total.....	86	74	Office of P. C. C. S.....	3	
Charleston control.....	22	22	South City.....	5	
Charleston transmitter.....	6	7	Yerba Buena (control).....	54	
L. V. No. 81, Brunswick ¹	1	0	L. V. No. 70, San Francisco ¹	1	
L. V. No. 34, Charleston ¹	1	0	L. V. No. 83, Blunts Reef ¹	1	
L. V. No. 94, Fryingpan Shoals ¹	1	0	Bird Island (compass).....	6	
L. V. No. 1, Martins Industry ¹	1	0	Eureka (compass) ¹	4	
Savannah ¹	2	3	Fara lone (compass).....	6	
Folly Island (compass).....	6	6	Point Montara (compass).....	6	
North Island (compass).....	6	6	Point Reyes (compass).....	6	
Tybee Island (compass).....	5	0	Twelfth district total.....	111	
Sixth district total.....	52	44	Astoria.....	6	
			Communication office.....	1	
			Corrova (control).....	16	
			Corrova (transmitter).....	12	
			Dutch Harbor.....	6	
			Juneau ¹	6	

¹ Stations to be closed if only 1,905 men are allowed for communications on shore.² In training.³ Promised but not opened.

of communication personnel on shore as of Jan. 31, 1922—Continued.

Activity.	Allowed.	On board.	Activity.	Allowed.	On board.
.....	10	7	Balboa (control).....	34	20
.....	7	4	Cape Mala.....	6	6
Umatilla Reef ¹	1	1	Colon.....	8	8
Columbia River ¹	1	1	Darien.....	15	12
Relief ¹	1	1	La Palma.....	6	2
Swiftsure Bank ¹	1	1	Puerto Obaldia.....	6	3
.....	6	6	Coco Solo ¹	3	0
.....	11	7			
e and signals ¹	1	0	Fifteenth district total..	78	51
C. S., Cordova ¹	1	0			
C. S., thirteenth			Cavite.....	46	36
.....	1	1	Guam.....	40	24
l (control).....	15	27	Office of D. C. S. sixteenth		
l (transmitter).....	11	7	district.....	2	2
.....	4	5	Office of Asiatic communica-		
.....	11	5	tion superintendent.....	1	1
.....	1	1	Olongapo ¹	4	4
.....	14	10	Vladivostok.....	26	33
.....	6	4			
(compass).....	6	3	Sixteenth district total..	119	100
(compass).....	5	1			
(compass).....	5	5	Guantanamo.....	33	28
nk (compass).....	7	3	San Domingo (to be manned		
ness (compass) ¹	6	1	by Marines) ¹	5	9
(compass) ¹	5	1			
(compass) ¹	5	1	Guantanamo district		
(compass) ¹	5	1	total.....	38	37
l (compass).....	6	1			
oint (compass).....	7	4	Caycey.....	27	32
npass).....	4	4	St. Croix.....	5	2
			St. Thomas.....	5	6
enth district total	212	159	San Juan.....	31	22
Honolulu.....	5	7	San Juan district total..	68	62
tion office, Pearl					
.....	3	2	Grand total.....	1,599	1,301
.....	10	8			
.....	15	19			
ntrol).....	47	30			
noa.....	12	10			
enth district total.	92	76			

* to be closed if only 1,303 men are allowed for communications on shore.

TO BE RETAINED AND CLOSED UNDER PLAN OF 15,000 MEN FOR SHORE DUTY.

in WILLIAMS. There is also a long list of stations that will shed if this number we have allotted there is assigned.

RENCH. In connection with that statement, would it not be Captain Bryant to show the stations that will be main- under the proposed plan, with the personnel quota for each

ELLEY. You may include that in your statement, Captain. in BRYANT. I will do so.

summary of stations to be retained on basis of 15,000 men on shore.

	Allowed.	At station.		Allowed.	At station.
and communi-			Fourth Cliff (compass).....	5	5
e.....	16	16	Gloucester (compass).....	4	5
S. Office.....	2	1	North Truro (compass).....	6	5
sea.....	5	6	Bar Harbor (compass).....	4	4
lio (traffic).....	5	5	Prices Neck (compass).....	5	5
ville).....	5	5	Surfside (compass).....	5	5
ntrol).....	16	11	Amagansett (traffic).....	5	5
Otter Cliff).....	90	77	New York communication		
.....	5	1	office.....	6	7
sea wall).....	6	5	New York compass control..	5	5
mpass).....	4	4	New York radio control.....	14	10
compass).....	5	5	New York D. C. S. Office.....	6	4

Summary of stations to be retained on basis of 15,000 men on shore—Continued

	Allowed.	At station.		Allowed.	At station.
New York transmitter.....	4	4	Office of P. C. C. S.....	3	
Sayville.....	16	13	South City.....	5	
Amagansett (compass).....	4	4	Yerba Buena (control).....	54	
Fire Island (compass).....	6	6	Bird Island (compass).....	6	
Mantoloking (compass).....	6	6	Farralone (compass).....	6	
Sandy Hook (compass).....	5	5	Point Montara (compass).....	6	
Navy yard, Philadelphia.....	7	8	Point Reyes (compass).....	6	
Bethany Beach (compass).....	4	2	Astoria.....	6	
Cape Henlopen (compass).....	7	8	Communication office.....	1	
Cape May (compass).....	6	5	Cordova (control).....	16	
Annapolis Hi-Power.....	24	21	Cordova (transmitter).....	12	
Indianhead.....	4	2	Dutch Harbor.....	6	
Bureau of Standards.....	1	1	North Head.....	11	
Navy Department station.....	41	32	Office of D. C. S. thirteenth district.....	1	
Navy yard, Washington.....	2	2	Puget Sound (control).....	15	
Arlington, Va.....	13	13	Puget Sound (transmitter).....	11	
Cape Hatteras (traffic).....	6	6	Sitka.....	11	
Morehead City.....	5	5	St. George.....	1	
Navy yard, Norfolk.....	5	6	St. Paul.....	14	
Norfolk (control).....	30	25	Seward.....	6	
Cape Hatteras (compass).....	5	4	Fort Stevens (compass).....	5	
Cape Lookout (compass).....	5	4	Hinchinbrook (compass).....	7	
Hog Island (compass).....	5	5	Smith Island (compass).....	6	
Poyners Hill (compass).....	5	4	Soapstone Point (compass).....	7	
Virginia Beach (compass).....	5	5	Tatoosh (compass).....	4	
Charleston (control).....	22	22	City office, Honolulu.....	5	
Charleston (transmitter).....	6	7	Commissioner's office, Pearl Harbor.....	3	
Folly Island (compass).....	6	6	Heela Point.....	10	
North Island (compass).....	6	6	Pearl Harbor.....	15	
Tybee Island (compass).....	5	8	Wailupe (control).....	47	
Jupiter (traffic).....	7	13	Tutuila, Samoa.....	12	
Key West (control).....	15	6	Balboa (control).....	34	
Key West (transmitter).....	5	6	Cape Mala.....	6	
Jupiter (compass).....	4	15	Colon.....	8	
New Orleans.....	22	5	Darien.....	15	
Pensacola.....	4	5	La Palma.....	6	
Point Isabel.....	25	6	Puerto Obaldia.....	6	
Port Arthur.....	5	8	Cavite.....	46	
Burwood (compass).....	7	4	Guam.....	40	
Chollas Heights.....	12	19	Office of D. C. S. sixteenth district.....	2	
Inglewood.....	4	4	Office of Asiatic commissioner-superintendent.....	1	
North Island (control).....	27	10	Vladivostok.....	26	
Point Loma (traffic).....	4	5	Guantanamo.....	33	
San Pedro (control).....	26	6	Cayey.....	27	
Imperial Beach (compass).....	5	4	St. Croix.....	5	
Point Arguello (compass).....	7	8	St. Thomas.....	5	
Point Heuneme (compass).....	6	7	San Juan.....	31	
Point Fermin (compass).....	4				
Point Loma (compass).....	4				
Mare Island, hi-power.....	7				
Mare Island, low power.....	5				
Office of D. C. S. twelfth district.....	1				
			Total.....	1,305	

Summary of stations to be closed on basis of 15,000 men on shore.

	Present complement.		P present
Portland traffic station.....	5	Miami traffic station.....	
Portland compass station.....	4	St. Augustine traffic station.....	
13 light vessels, first naval district.....	16	St. Petersburg traffic station.....	
4 light vessels, third naval district.....	4	Key West compass station.....	
Yacht Privateer, third naval district.....	1	Galveston traffic station.....	
Cape May traffic station.....	6	Mobile traffic station.....	
Lakehurst compass station.....	4	Grande Island compass station.....	
5 light vessels, fourth naval district.....	5	Pass a Loure compass station.....	
Naval Academy traffic station.....	4	2 light vessels, eighth naval district.....	
Base 2, Yorktown, Va., traffic station.....	1	Alpena traffic station.....	
Virginia Beach traffic station.....	5	Buffalo traffic station.....	
Baltimore traffic station.....	4	Chicago traffic station.....	
3 light vessels, fifth naval district.....	5	Cleveland traffic station.....	
Savannah traffic station.....	2	Detroit traffic station.....	
5 light vessels, sixth naval district.....	5	Duluth traffic station.....	

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That is the investment of the going establish-

Mr. KELLEY. Have you anything at Chicago?

Captain BRYANT. We have a station at Chicago.

Mr. KELLEY. Do you have anything at Gary?

Captain BRYANT. No, sir.

Mr. KELLEY. Nothing east of the State of Michigan?

Captain BRYANT. No, sir; not on the east coast of Lake Michigan. We closed two stations there, one at Ludington and one at Frankfort.

Mr. KELLEY. Will you tell me on what theory you operate a service on the Great Lakes for the Navy?

Captain BRYANT. It was inherited from the war. Those stations were thrown in when the Marconi stations were purchased by the Navy during the war, and they have been operated since that time by the Navy Department.

Mr. KELLEY. Do we own these stations?

Captain BRYANT. Yes, sir; and until some one is willing to take them over or operate privately owned stations sufficient to furnish this service, there seems to be a sort of moral obligation on the part of the Navy to continue the service.

REVENUE OBTAINED FROM RADIO SERVICE.

Mr. FRENCH. Do we receive any revenue from the radio service?

Captain BRYANT. Yes, sir; for some of it. Of course we do not receive any revenue from the Government business.

Mr. FRENCH. You maintain it primarily for Government service, and then, in addition to that, you receive revenue from other sources?

Captain BRYANT. Yes, sir.

Mr. FRENCH. Do we receive any revenue from the Great Lakes stations?

Captain BRYANT. Yes, sir; from ships passing through the Great Lakes. They make considerable use of the radio service.

Secretary DEXBY. You do not receive any revenue from giving ships its position?

Captain BRYANT. No, sir; not from the radio compass stations. The other stations are traffic stations, and the ships send reports to their officers and relay them through our traffic stations in the area, as well as using them for ordinary messages between the ships and the shore.

Mr. FRENCH. You have three functions—one for the Navy, for shipping, in the general interest of life and property—and you have a commercial function, which later is the revenue-producing service.

Captain BRYANT. Yes, sir.

AMOUNTS RECEIVED FROM RADIO SERVICE.

Mr. FRENCH. I wonder if we should not have inserted some statement of the receipts, so that we could have a bird's-eye view of the income from the service.

Captain BRYANT. I can give you the receipts for the years 1918, 1919, 1920, and 1921. I can give you the actual amount turned into the Treasury.

Mr. KELLEY. From all sources?

Captain BRYANT. Yes, sir; we can not charge the Government anything.

Mr. KELLEY. You handle the messages of all the other departments free of charge?

Captain BRYANT. Yes, sir.

Mr. KELLEY. How much did you turn into the Treasury?

Captain BRYANT. In 1917, \$32,249.34; in 1918, \$291,903.08; in 1919, \$221,171.19; in 1920, \$641,584.90, and in 1921, \$666,362.44. Those are the amounts actually deposited in the Treasury.

Mr. FRENCH. That money, you might say, comes from service that you would necessarily have to maintain for the Government service even if you did not receive any revenue at all?

Captain BRYANT. Yes, sir. Those amounts represent revenue from service over and above the service that we perform for the Navy and other Government departments.

Mr. FRENCH. Nothing is charged up against the Government departments on account of this service?

Captain BRYANT. No, sir; these amounts were actually received in money and deposited in the Treasury. They were received from private sources, for services performed in handling messages of a nature other than purely Government.

AMOUNT WHICH WOULD HAVE BEEN RECEIVED FROM FEDERAL GOVERNMENT FOR RADIO SERVICE IF CHARGES WERE MADE.

Admiral COONTZ. I would like to have a statement showing the entire amount earned, or a statement showing the work that we did for the Federal Government last year, and for which we received no money.

Mr. KELLEY. That is, if that service had been charged for at the usual rates?

Captain BRYANT. We can give that to you and shall include it in the record.

Mr. KELLEY. Of course, that does not help us much, because if the other departments can use a service like this without cost they will make use of it for every little thing, and, therefore, that amount would not represent a saving.

Secretary DENBY. It would be interesting in the record, would it not?

Mr. KELLEY. Yes. Go ahead and put it in.

Captain BRYANT. I will put it in the record. The total estimated Government traffic handled by the Naval Communication Service for the fiscal year 1921 was \$3,647,947.56. This was estimated at commercial cost (Government rates).

Mr. KELLEY. Does that include the Navy?

Captain BRYANT. Yes, sir.

TOTAL NAVAL INVESTMENT IN RADIO PLANTS OPERATING NOW.

Mr. FRENCH. What is the total investment in the radio plants of the country?

Captain BRYANT. In the Navy approximately \$25,000,000 for both ship and shore installations.

Mr. FRENCH. Does that include anything that might be regarded as a war charge and that could be cut off now, or is that the investment of the going plants at this time?

Captain BRYANT. That is the investment of the going establishment.

ADVISABILITY OF NAVY CONTINUING COMMERCIAL RADIO PRACTICE.

Mr. FRENCH. There is another question I would like to ask as a matter of interest. There is a very fine increase in commercial business, and from your outlook does it seem that it is becoming the fixed habit of the business world to make use of the radio, so that we could look for still further increases?

Captain BRYANT. Undoubtedly it will increase, but I think it has been the Secretary's attitude that where a private station can take over the commercial work that is already done by a naval station the naval station must cease and the privately owned station be allowed to operate.

Mr. KELLEY. How does our establishment compare with the private establishments in volume of business done by each for private use?

Captain BRYANT. They are very loath to give us figures as to the amount of traffic they handle, and I doubt whether we could get that from them.

Mr. KELLEY. What is your theory about this radio business? Do you think the Navy should go on handling it, or turn it over to private enterprise?

Secretary DENBY. I think the Government ought to go on and carry it on. I think some of it could properly be turned over, but I think the Navy is the proper agency to take care of shipping and interests of that sort, and certainly the traffic with our outlying possessions of the high-powered transoceanic and transcontinental radio of the Government—that is, of the Navy—not with the idea of competing with private parties but simply the old idea that has always prevailed of the Government not engaging in private business.

Mr. KELLEY. When you make charges for private business, do you follow the commercial rates or make lower rates?

Capt. BRYANT. We follow the commercial rates, and where they have raised the rates we go up to where they are. In the matter of press rates, however, Congress has authorized special low rates in certain localities.

Mr. KELLEY. So they have no legitimate cause to complain about your cutting under them?

Captain BRYANT. No, sir.

Admiral COONTZ. You see, at sea, if an officer wants to send a message he goes to the radio and pays for it, and if an officer's wife sends him a message at sea she pays for it. I have called attention to the vast amount of work we do in central Europe.

LOCATION OF HIGH-POWERED RADIO STATIONS OUTSIDE OF THE UNITED STATES.

Mr. KELLEY. We will come to that later. Where are we engaged in the radio business, outside of the United States?

Captain BRYANT. In communication with the West Indies, Canal Zone—

Mr. KELLEY (interposing). Are those what the Secretary calls high-powered stations?

Captain BRYANT. Yes, sir. We communicate with the outlying possessions through our high-powered stations.

Mr. KELLEY. Where are the high-powered stations that belong to the Government located outside of the United States?

Captain BRYANT. In Porto Rico, in the Canal Zone, at Guantanamo, medium high powered; at Cordova, Alaska; at St. Paul.

Philippine Islands; Honolulu, at Guam, at Samoa, medium high powered; at Cavite, at Vladivostok, or Russian island right near Vladivostok, and there is a medium-powered station at Peking in the leased grounds.

Mr. KELLEY. We have built all of these during the war, have we? **Captain BRYANT.** No, sir.

Mr. KELLEY. All the high-powered stations?

Captain BRYANT. No, sir. This was the plan before the war started, sir.

Mr. KELLEY. I know, but when were they built?

Captain BRYANT. The ones that actually grew out of the war were at Annapolis, which was considered necessary for maintaining communication with the American forces in France, and Vladivostok, communication with the American forces in Siberia. The act of June 30, 1914, provided for the commencement of the stations in the Naval Zone, Honolulu, Guam, Tutuila, Cavite (Philippines), and their erection was undertaken immediately after the funds were available. The Porto Rico station was appropriated for in the act of March 4, 1917. Guantanamo was built in 1915. Cordova, St. Paul (Philippine Islands), Tutuila and Peking have been increased in power since 1917.

RADIO SERVICE IN EUROPE.

Mr. KELLEY. What have you built in Europe?

Captain BRYANT. You mean in the way of radio stations?

Mr. KELLEY. Yes.

Captain BRYANT. We have no radio stations in Europe, except at Constantinople; there is a receiving station where the enlisted men keep a watch at the High Commissioner's office in Constantinople, which keeps him in communication with the destroyers trolling around that area.

Mr. KELLEY. Then what does the admiral mean about so much work being done in central Europe?

Captain BRYANT. I have not finished yet. There is a communication service in central Europe which connects up with our high-powered trans-Atlantic service to France. We communicate directly with the Lafayette station in France, and they have permitted our operators to receive messages from Annapolis direct. They are passed to the shore communication system in Europe, which was established at the time of the armistice, immediately after the war, in connection with the relief work that was going on, such as the child's relief, the Red Cross relief, the Near East relief, and the Russian relief. The reason for this establishment appears to have been that there was no reliable government in central Europe which could operate a communication system so that messages would go through reliably, that is, no one could be sure that his message would get through at any time, so these associations in order to carry on their philanthropic work realized they had to have a reliable communication system and as the naval communication system, which had been operating, could perform this service efficiently its work was continued. The relief associations are paying practically all of the expenses of that system. We have about 20 men engaged on that work. The Army has a land-wire office at Coblenz; the wire system runs from Paris to Coblenz, to Vienna, to Prague and Warsaw, and there were side branches. At Vienna arrangements were made with

the Austrians to operate the station right near Vienna, a radio station, which puts us in direct communication with Constantinople by radio, and I may add, this station was used a great deal while the Adriatic detachment was patrolling the Adriatic, for maintaining communication with that detachment.

RADIO SYSTEMS OF OTHER GOVERNMENTS AND THEIR COOPERATION.

Mr. KELLEY. Does Great Britain maintain an elaborate system like this?

Captain BRYANT. Oh, yes, sir.

Mr. KELLEY. And any other nations?

Captain BRYANT. Great Britain, France, Italy—and Germany is now beginning.

Mr. KELLEY. Have we arrangements with those Governments for the interchange of messages?

Captain BRYANT. We have arrangements with the French Government for the interchange of official messages; we work direct with the Italian Government station, the Japanese Government, the German Government, and any other government that has a station that can work with the United States stations.

Mr. KELLEY. How about private-messages—will they deliver them?

Captain BRYANT. No, sir. Where there is a privately owned United States radio station operating a circuit with a radio station in any other country we do not attempt to handle commercial messages.

PROHIBITION BY LAW OF GOVERNMENT FROM INTERFERRING WITH COMMERCIAL RADIOS.

Mr. KELLEY. Does the fact that the United States is engaged in this business have a tendency to keep private people from developing the business on their own account?

Captain BRYANT. I should say not.

Mr. KELLEY. Suppose you were inclined to go into the radio business in South America, we will say; would you not be a little bit fearful, with the United States Government in the business on such a large scale, that it would be a dangerous thing for you to do?

Captain BRYANT. The law prohibits it, Mr. Kelley; the private companies are protected by law. If anything like that is about to take place all that is necessary to be done to stop any Government competition is for the Secretary of Commerce to notify the Secretary of the Navy that the normal communication requirements are being met by a privately owned station.

Mr. KELLEY. But sometimes it is so easy to change the law and you might hesitate to go into that enterprise.

PAYMENT BY NAVY FOR USE OF PRIVATELY OWNED RADIO.

Mr. FRENCH. Do you have the advantages of private radio service throughout the world for the Navy, as you may need the service, or do you have to pay for that?

Captain BRYANT. Our naval vessels have to pay for every dispatch they send through a foreign coast station or through one of our own coast stations that is not owned by the Navy Department.

CAPITAL INVESTED IN RADIO SYSTEMS BY PRIVATELY OWNED BUSINESS.

Mr. FRENCH. What would you say is the capital invested by private concerns in the radio business, or would you have any way of estimating it?

Captain BRYANT. The Radio Corporation of America, which is the biggest single company in the United States, has an investment, I believe, estimated at about \$16,000,000; the Federal Co., which is a manufacturing company but has asked for concessions in China and now has one by which they mean to communicate between China and the United States, is the next largest company, but I am not able to estimate what their investment is.

TOTAL COST TO NAVY FOR OPERATING RADIO SYSTEM.

Mr. FRENCH. Suppose we did not have this institution maintained by the Government and yet wanted the service for our Navy and for shipping and were compelled to pay the rates, how would the expense compare with the expense of keeping up this as an institution under the Government?

Captain BRYANT. Well, I figure that we get about a 16 per cent return on our investment.

Mr. FRENCH. At present?

Captain BRYANT. Yes, sir.

Mr. KELLEY. What do you mean by that?

Captain BRYANT. I mean that with the money invested we save that much money on it.

Mr. BYRNES. But you have not deducted your operating expenses, have you, and you mean that the amount of revenue is about 16 per cent of the money invested?

Captain BRYANT. Yes; that is what I mean, the estimated revenue.

Mr. BYRNES. But it is not the net return?

Captain BRYANT. No.

Mr. KELLEY. But you do not know what the cost is?

Captain BRYANT. The cost can be figured up for each independent station.

Mr. KELLEY. What do you figure we are paying for radio in the Navy per annum?

Captain BRYANT. I will give you the figures for the maintenance cost. That will be included in a statement which I shall place in the record.

Mr. KELLEY. What figures have you that you could give just the operation?

Captain BRYANT. I can give you the total number of words we have handled.

Mr. KELLEY. I do not want anything like that. I want to know what the total system costs for operation, including repairs and upkeep of every sort.

Captain BRYANT. I will include that in my statement for the record.

Mr. BYRNES. You do not advocate this as a money-making proposition, but because you believe the Navy ought to control the radio stations, is that the theory?

Captain BRYANT. Primarily, of course, it is in the interest of national security, and that was the reason the system was built up, and the Navy should operate and control the system in the interest of national security.

GOVERNMENT CONTROL OF HIGH-POWERED RADIOS.

Mr. KELLEY. What did you mean when you said the Government ought to control all of the high-powered stations?

Captain BRYANT. My reason for saying that is that the high-powered stations, which are established, owned, and operated by the Navy are the backbone of the communication line which our Navy would use in any naval campaign. I refer to naval high-powered stations. Private stations should, however, be regulated by the Federal Government.

Mr. KELLEY. And it is the theory that no private concerns build high-powered stations like them?

Captain BRYANT. For commercial purposes with other concerns I think they should build them.

Mr. KELLEY. That is why I did not quite understand you.

Captain BRYANT. If they were built where our strategic requirements require it, they might not necessarily be good commercial investments, although, as a rule, naval stations happen to be in places which yield some commercial returns.

Mr. KELLEY. If the Government controlled all the high-powered stations would we have high-power stations enough to take care of the commercial business of the private companies and concerns?

Captain BRYANT. I think we would have; yes, sir—to include the privately owned high-powered stations.

Mr. KELLEY. And there would be no objection to an arrangement between the Government and private companies for the use of high-powered stations—is that your idea or, perhaps, your suggestion?

Secretary DENBY. I do not think the captain has any objection to abolishing of these.

Mr. KELLEY. I am floundering because I do not know what you mean and I am trying to find out.

Captain BRYANT. The way I look at it is this: our requirements for our naval operations and what we need before you was the fact that this system of naval communications, established in the United States and out in our possessions, is based on the strategic needs of the Navy in any or any naval campaign in any area, while the stations are established primarily in places where they are needed and I feel, of course, that they should have the privilege to go ahead and do that.

Mr. KELLEY. Your remarks did not include the use of them as that.

Captain BRYANT. Not by the Navy; no, sir.

Mr. KELLEY. Nor by the Government?

Captain BRYANT. Control, yes; but not ownership.

The CHAIRMAN. I understood you to say that the high-powered stations sufficient to meet all the needs of the Navy.

Captain BRYANT. Of the United States.

The CHAIRMAN. That is, in communication?

Captain BRYANT. Yes, sir; if you include that.

The CHAIRMAN. And I think I understood you to say that there would not be any objection to the use of the high-powered stations by the Navy by the commercial concerns.

Captain BRYANT. I understand you to say that.

Mr. KELLEY. Not exactly that, sir. I understand you did not use

Captain BRYANT. To be used for commercial purposes.

The CHAIRMAN. But controlled and operated by the Navy at a cost to be paid by the commercial institutions which might wish to use them?

Captain BRYANT. Yes, sir; for transmitting their messages, but keeping the operation in the hands of the Navy.

The CHAIRMAN. And if that conclusion is correct, do you think investments by commercial enterprises in the radio service of the world would not be justified?

Captain BRYANT. Well, I think it has justified itself, because they have already done it.

The CHAIRMAN. We need not argue that question if it is out of the way.

Mr. KELLEY. When was the station at Vladivostok built?

Captain BRYANT. It was built in the winter of 1918, when the allied forces went into Siberia.

AUTHORITY FOR NAVY TO ESTABLISH NEW STATIONS.

Mr. KELLEY. Has the Navy Department the authority to establish new radio stations whenever they see fit and wherever?

Captain BRYANT. No, sir; I believe they have always been appropriated for by Congress.

Mr. KELLEY. For specific places?

Captain BRYANT. The high-powered stations have been specifically appropriated for.

Secretary DENBY. But not the Great Lakes stations?

Captain BRYANT. No; they have not.

Mr. KELLEY. Do you think you now have authority to establish smaller stations?

Captain BRYANT. Yes, sir; there is such authority.

Mr. KELLEY. The only limitation being the amount of money appropriated for the Bureau of Engineering?

Captain BRYANT. Yes, sir; but instead of establishing stations, we have been cutting them out.

Mr. KELLEY. I know, but I was asking for the authority.

Secretary DENBY. If it were included in the appropriation it could be used.

Colonel ROOSEVELT. I checked that up for my own information some time ago, and I found we have authority to establish the smaller stations if they come within the appropriation, but as to the high-powered stations, it was thought best, because they were large undertakings, to get specific authority.

Admiral COONTZ. And we can buy land up to, I think, \$500.

Captain BRYANT. Yes, sir.

The CHAIRMAN. Did I understand you to say you did not have authority to establish the Great Lakes stations?

Secretary DENBY. No; we did not have a special authorization.

The CHAIRMAN. You bought them, as I understand it?

Captain BRYANT. Yes, sir; they were bought during the war.

The CHAIRMAN. What authority did you have to buy them?

Secretary DENBY. We had the war authority to do that.

The CHAIRMAN. And, of course, that being done, you maintain them under the war authority?

Secretary DENBY. Captain, have we bought any since?

Captain BRYANT. Not since the war.

The CHAIRMAN. But you are operating stations taken over during the war without having any law that authorized either their establishment or operation: is that right?

Secretary DENBY. The war authority, I think, was broad enough for that.

Mr. BYRNES. Is it not a fact that there was some legislation passed by the Merchant Marine and Fisheries Committee which authorized them to be taken over?

Secretary DENBY. I do not know, but I can easily find out.

Captain BRYANT. The Secretary of the Navy purchased some of the coast stations during the war; he purchased all of the Marconi coast stations.

Mr. KELLEY. My recollection is that you had authority to acquire anything to carry on the work of the Navy during the war, and under that authority you acquired these stations?

Captain BRYANT. Yes, sir.

Mr. KELLEY. And I suppose under the same general authority you can operate anything needful for the Navy.

Colonel ROOSEVELT. I think it might be well to draw attention to the fact that the Navy, perhaps more than anybody else, has been responsible for very great advances in radio.

Mr. KELLEY. But once in a while you hear the idea advanced by people who are the business in a private way that there is no encouragement for them to make experiments and go forward because the Government is in it in such a large way.

Secretary DENBY. The whole thing is in such a state now that it is very difficult to settle it. The radio telephone has complicated it and a board is now sitting on that.

OTHER GOVERNMENT AGENCIES OPERATING RADIOS.

Mr. KELLEY. Is there any other Government agency that operates radio?

Secretary DENBY. Yes; I think the Post Office Department, the Army, and the Department of Commerce, but I do not know anything about their stations.

Colonel ROOSEVELT. The Post Office Department operates practically nothing, although they do operate some very small stations.

Captain BRYANT. They have about seven or eight stations across the country.

The CHAIRMAN. And that is in connection with their air mail service?

Captain BRYANT. Yes, sir.

The CHAIRMAN. They are not authorized by law to do that.

Colonel ROOSEVELT. The Army operates more in the interior, and they have sets they are installing at the headquarters of each corps area, and the operations of the Department of Commerce have to do with their lightships, relatively few in number and all of low power.

Mr. KELLEY. But no other department operates on the coast or to outside countries?

COOPERATION BETWEEN ARMY AND NAVY IN RADIO WORK.

Admiral COONTZ. The Army has certain stations and at the present time, at the request of the Secretary of the Navy, a joint board

of which General Pershing is chairman, is endeavoring to ascertain whether the Army and the Navy in any manner conflict and what stations, if any, can be cut out, and they are to recommend that every message it is possible to send by the Navy over Army radio, or vice versa, shall be sent.

Colonel ROOSEVELT. We are zoning the whole thing as far as we are able.

Admiral COONTZ. It is under consideration by the joint board at this very minute.

RADIO AT HAITI.

Secretary DENBY. If I may I would like to ask Captain Bryant a question or two. When I was in Haiti they told me that if the Navy radio would increase its facilities it would easily pay for itself, and they were very anxious to have it done. I am asking now, for my own information, what that status is. That is a Marine Corps station, but do you know about it?

Captain BRYANT. Yes, sir; the Navy owns it and the marines operate it. They want to get a high-powered station there so as to communicate direct with the United States and have it handle commercial business as well as Navy business, but we felt that the expense necessary for an increase in power was not justified because they can communicate direct with Guantanamo and San Juan, from either of which places communication with the United States is practicable.

Secretary DENBY. You do not think it would be beneficial to increase the power for commercial purposes?

Captain BRYANT. No, sir.

TOTAL OPERATING EXPENSE OF RADIO BY NAVY AND VALUE OF INVESTMENT.

Mr. KELLEY. Will you put in the record, after you ascertain what the fact is, a statement giving the total operating expense of the radio system of the Navy and also the value of the investment as nearly as you can get at it?

Secretary DENBY. You mean the cost price?

Mr. KELLEY. I would not say that, but I would say as near as you can get at what the entire plant cost?

Value of the naval shore radio establishment as of Apr. 1, 1921.

Patents.....	\$625,000.00
Radio compass stations.....	795,318.58
Atlantic and Gulf Coast stations.....	7,029,800.00
Great Lakes, Alaska, Pacific coast and in Pacific.....	6,970,840.00
Total shore stations.....	15,420,958.58

Ships and other installations.

Ships.....	6,828,924.57
Aircraft.....	119,536.00
Patents.....	625,000.00
Sound apparatus.....	2,164,697.00
Total ships.....	9,738,157.57
Total ship and shore.....	25,159,116.15

Secretary DENBY. In other words, what it would take to construct that plant, because its value to-day, if sold at second hand, would probably be very much less than it would cost to replace it.

Captain BRYANT. That includes the pay of the personnel, I presume?

Statement of Naval Communication Service, fiscal year 1921.

Credits:		
Commercial radio traffic, net.....	(a) \$380,188.85	
Government radio traffic (b).....	(c) 3,647,947.50	
Total radio.....		(c) \$4,028,136.41
Leased wire telephone traffic.....	(c) 120,170.48	
Leased wire telegraph traffic.....	(c) 66,459.81	
Total leased wire.....		(c) 186,630.29
Telephone service rendered Navy.....		(j) 229,596.36
Commercial telegraph and cable traffic, Navy.....		(k) 85,442.84
Compass bearings to United States Navy (7,244).....	(d) 8,692.80	
Compass bearings to other vessels (51,516).....	(d) 61,819.20	
Total compass service.....		70,512.00
Proceeds shipping bulletin (pro rata).....		83,880.00
Total credits (l).....		\$4,684,197.90
Debits:		
Plant—		
Maintenance radio plant.....	1,150,000.00	
Rental telephone plants.....	(f) \$145,654.12	
Leased telephone wires.....	\$18,690.72	
Leased telegraph wires.....	31,571.04	
Total leased wire.....	50,261.76	
Total leased plant and wires.....	(f) 195,915.88	
Total plant expense.....		1,345,915.88
Traffic—		
Telephone local and long-distance tolls.....	83,942.24	
Telegraph and cable tolls.....	85,442.84	
Total traffic expense.....		(g) 169,385.08
Personnel—		
Officers (116).....	(e) 429,957.02	
Enlisted men (1,264).....	(e) 1,983,817.18	
Total Navy.....		(e) 2,413,774.20
Civil—		
Field Service—		
Clerical (57).....	\$74,308.00	
Telephone (107).....	124,688.00	
Telegraph (36).....	64,000.00	
Civil field service proper.....		263,000.00
Shipping Bulletin.....	83,000.00	

D. N. C. Office (112).....	503,576.00	(A) 156,000.00
Total civil under DNC.....	503,576.00	
Civil radio personnel (Engineering).....	200,000.00	
Total personnel expense (c).....	3,117,350.20	
Total debit.....	4,632,651.16	
Net saving to Government of Naval Communication Service for fiscal year 1921 (l).....	51,546.74	

(a) Cash turned into Treasury.

(b) Includes all Government departments and Shipping Board.

(c) Estimated at commercial cost (Government rate).

(d) Estimated at average charge made by foreign governments.

(e) Includes at pay and allowances, including subsistence.

(f) Plus (g) is "Pay, miscellaneous," sub. 10.

(g) Covers entire amount paid to commercial lines for all Navy traffic.

(h) Under legislative, executive and judicial.

(i) Plus (g) equals (j) plus (k) and the credit balances the debit.

(j) Exclusive of military value, safety of life at sea, pigeon service, time and meteorological service, handling of international radio accounts, etc., to which no money value can be assigned.

Respectfully submitted.

LEIGH NOYES,
Commander United States Navy, Chief of Traffic Section.

Statement of Naval Communication Service first half fiscal year 1922 (July 1, 1921, to Dec. 31, 1921.)

Credits:

Commercial radio traffic, net.....	(a) \$144,659.78
Navy radio traffic.....	(c) \$1,422,094.22
Other Government radio traffic (b).....	(c) 501,383.74
Total Government radio.....	(c) 1,924,091.96
Total radio.....	\$2,068,751.74
Leased-wire telephone traffic.....	13,649.94
Leased-wire telegraph traffic, Navy.....	176,699.67
Leased-wire telegraph traffic, other Government.....	24,819.83
Total leased wire.....	215,139.48
Telephone service rendered Navy.....	(j) 90,793.44
Commercial telegraph and cable traffic, Navy.....	(k) 35,668.22
Compass bearings to United States Navy (9,975).....	(d) 11,970.00
Compass bearings to other vessels (28,121).....	(d) 34,108.80
Total compass service.....	(d) 46,078.80
Total credits (l).....	\$2,456,395.72

Debits:

Plant—	
Maintenance radio plant.....	\$620,000.00
Rental telephone plants.....	(i) 60,262.03
Leased telephone wires.....	\$10,212.48
Leased telegraph wires.....	11,494.56
Total leased wire.....	24,707.04
Total leased plant and wires.....	(f) 84,969.07
Total plant expense.....	704,969.07
Traffic—	
Telephone local and L. D. tolls.....	30,404.45
Telegraph and cable tolls.....	35,668.22
Total traffic expense.....	(g) 66,162.67
Personnel—	
Officers (99).....	(e) 183,248.99
Enlisted men (1,206).....	(c) 1,001,901.17
Total Navy.....	(c) 1,185,148.16
Civil—	
Field service—	
clerical (61).....	\$34,743.00
telephone (109).....	62,521.24
telegraph (34).....	21,516.76

.....	190,518.77
.....	180,000.00
Total personnel expense (e).....	1,535,665.93
Total debit.....	2,306,768.67
Net saving to Government of Naval Communication Service for six months (f).....	140,467.05

(e) Cash turned into Treasury.
 (f) Includes all Government departments and Shipping Board.
 (g) Estimated at commercial cost (Government rate).
 (h) Estimated at average charge made by foreign governments.
 (i) Includes all pay and allowances including subsistence.
 (j) Plus (g) is "Pay, miscellaneous," sub. 10.
 (k) Covers entire amount paid to commercial lines for all Navy traffic.
 (l) Under legislative, executive, and judicial.
 (m) Plus (g) equal (j) plus (k) and the credit balances the debit.
 (n) Exclusive of military value, safety of life at sea, pigeon service, time and meteorological service, handling of international radio accounts, etc., to which no money value can be assigned.

Respectfully submitted.

LEIGH NOYES,
 Commander United States Navy, Chief of Traffic Section.

RATING AND PAY OF MEN ENGAGED IN RADIO SERVICE.

Mr. KELLEY. Yes; all the expense. What ratings are engaged this kind of work mostly?

Captain BRYANT. Radio men.

Mr. KELLEY. What classes?

Captain BRYANT. From chiefs down to second class, although there are a few third class ashore.

Mr. KELLEY. They would get about what pay per month?

Captain BRYANT. Chief radio men get \$126 a month; the pay the lower ratings is, of course, less, depending on the rating.

Mr. KELLEY. Are most of them those highly paid officers, from \$126 a month?

Captain BRYANT. No; there are more in the lower ratings than there are in the rating of chief radioman. There are a good many chiefs now on the Pacific coast, and navigation has been trying to get them adjusted so that we will have a better proportionate distribution.

Mr. KELLEY. Captain, can you tell me how many of these 1,305 in each rating, the number of men in each rating with the pay of each?

Captain WILLIAMS. I believe the rates run, \$126, \$99, \$72, and \$48.

Mr. KELLEY. Please send to the committee a statement showing the number in each grade and the pay of each.

Captain WILLIAMS. Yes, sir.

The CHAIRMAN. The Navy has been advocating the control of radio business for commercial purposes, has it not?

Captain BRYANT. The last administration advocated that, I think.

The CHAIRMAN. And the present administration?

Secretary DENBY. It advocates the regulation of radio, and that is a matter which is now agitating everybody.

The CHAIRMAN. Has that matter been before any of the House committees?

Secretary DENBY. Not that I know of.

Mr. KELLEY. I notice that you had 22 men at the Paris headquarters on the 1st of July. What are they doing over there now?

Captain BRYANT. Some of them are used in connection with land lines in central Europe.

Mr. KELLEY. That is, they are used in connection with the radio service?

Captain BRYANT. Yes, sir.

Mr. KELLEY. It says at the headquarters.

Captain BRYANT. That was the naval staff headquarters in Europe, and I know some of the radio men were attached there and were actually doing duty there.

AIR SERVICE.

DISTRIBUTION OF ENLISTED PERSONNEL IN AIR SERVICE.

Mr. KELLEY. Now tell me why you need 1,070 enlisted men in aviation?

Captain WILLIAMS. You have not forgotten the hospital item.

Mr. KELLEY. No; I will come back to that.

Commander ELLYSON. The Fleet Air Base at San Diego 6736; the Anacostia Experimental Station 211; Lakehurst 38; Hawaii 85. That brings it up to the total of 1,070.

Mr. KELLEY. What do these enlisted men do?

Commander ELLYSON. At Anacostia there are 3 in the clerical department, 4 in photography and aerology, repair and overhaul 48, experimental 52, handling of planes and minor overhauls 56, care of ordnance gear equipment 4, radio communications 15, upkeep of buildings and grounds 14, medical department 2, commissary department 12, and police duties 1.

Mr. KELLEY. An all-around service from mechanics to helpers of various sorts to take care of the machines when the boys bring them?

Commander ELLYSON. Yes, sir.

NUMBER OF MACHINES IN ACTUAL FLYING CONDITION.

Mr. KELLEY. Do you know how many machines there are in actual condition for flying now?

Commander ELLYSON. I can tell you at each station how many are allowed and there are approximately 50 per cent more in reserve at each station. Do you want it by stations or by grand total?

Mr. KELLEY. Just give us the total.

Commander ELLYSON. The total at shore stations?

Mr. KELLEY. Yes, sir.

Secretary DENBY. Of all types?

Mr. KELLEY. Yes, sir; all types of machines that are in good condition for flying.

Commander ELLYSON. I can not give you that. I have just those in condition for operating.

Mr. KELLEY. All right; just those in condition for operating.

Commander ELLYSON. At Anacostia, 20; at Coco Solo, 16; at Pensacola, 181; at San Diego, 91; at Pearl Harbor, 15; at Hampton Roads, 75; at Dahlgren, 4; at Newport, 2.

Mr. KELLEY. How many does that make altogether, Commander?

Commander ELLYSON. Four hundred and four.

Mr. KELLEY. Are those in operation all the time?

Commander ELLYSON. At Hampton Roads I gave 75 machines, and there are only four in operation.

Mr. KELLEY. Can you give us the total number that are in operation, without giving them by stations?

Commander ELLYSON. There is an allowed complement of so many machines to be kept in operation.

Mr. KELLEY. Give us that number.

Commander ELLYSON. One hundred and sixty-seven.

AIR STATIONS TO BE CLOSED FOLLOWING PROPOSED COMPLEMENT.

Mr. KELLEY. And you need 1,070 men?

Commander ELLYSON. One thousand and seventy men would necessitate closing Hampton Roads, closing the training school at Pensacola, and all other stations except Hawaii.

AIR STATIONS TO BE OPERATED UNDER PROPOSED COMPLEMENT.

Mr. KELLEY. And what places would be left?

Commander ELLYSON. San Diego, Anacostia, Lakehurst, and Hawaii.

Mr. KELLEY. The bulk of these operations is at San Diego?
 Commander ELLYSON. Seven hundred and thirty-six are need at San Diego.

Mr. KELLEY. How many have you at San Diego?

Commander ELLYSON. About 100 less than that.

AIRPLANES AT CANAL ZONE.

Mr. KELLEY. How many airplanes have you at the canal?

Commander ELLYSON. Sixteen.

Mr. KELLEY. How man has the Army down there?

Commander ELLYSON. I do not know.

Mr. KELLEY. The airplane business on the canal belongs to the Army and it would not matter whether we had any there or not!

Commander ELLYSON. Yes, sir; we are responsible.

Mr. KELLEY. How many machines have you there?

Commander ELLYSON. We have only four there.

Mr. KELLEY. Might not even those be cut down?

Commander ELLYSON. We can not do it.

TOTAL NUMBER OF MEN ON SEA AND SHORE DUTY JANUARY 1, 1922.

Mr. KELLEY. Did you make a distribution for the Naval Committee of the personnel ashore at the same time that you made a distribution of those afloat?

Captain WILLIAMS. I do not think there was one made.

Colonel ROOSEVELT. I am practically certain there was none made.

Mr. KELLEY. What was the ratio of men afloat to men ashore for the war, in 1916?

Captain WILLIAMS. Two to one.

Mr. KELLEY. One third?

Captain WILLIAMS. Yes, sir; that is, approximately.

Mr. KELLEY. To make that a fair comparison we will have to include the proper number for aviation and radio. That would about all we would have to do.

Captain WILLIAMS. There is another element to which I want call your attention, the hospital force.

Mr. KELLEY. If you will answer this question of mine we will back to the hospitals.

Captain WILLIAMS. I do not know just exactly what you are doing at, Mr. Kelley.

Mr. KELLEY. Before the war you said that we had one-third many people on shore as on the sea?

Admiral COONTZ. No; one-half.

Mr. KELLEY. One-half?

Captain WILLIAMS. Two to one, two at sea and one ashore.

Mr. KELLEY. That is one-third the entire number.

Captain WILLIAMS. You are speaking of this distribution 15,000 and its peculiarities?

Mr. KELLEY. How many men did we have ashore and afloat 1916?

Commander LEAHY. I have not that. If you will take the figures of 1915 you will find it.

Mr. KELLEY. Captain, how many men did you have at sea on the 1st of January, last?

Captain WILLIAMS. Sixty-eight thousand one hundred and thirty-eight.

Mr. KELLEY. How many did you have ashore?

Captain WILLIAMS. I would like to call your attention to the fact that the 68,000 probably included shore-based submarine tenders, 2,861. That includes men under training and men on general detail.

Mr. KELLEY. Seventeen thousand four hundred and seventy-two you gave the Naval Committee as being the shore establishment on the 1st of January?

Commander LEAHY. That probably did not include men under training and general detail.

Mr. KELLEY. You say that you had 68,000. You must have had more men than that on the 1st of January.

Captain WILLIAMS. You are talking about civilian employees?

Mr. KELLEY. No, sir; enlisted men.

Captain WILLIAMS. There must be some mistake.

Mr. KELLEY. Who prepared that table?

Captain WILLIAMS. That came from the Bureau of Yards and Docks report which was two years old. I would not swear to it, but that is my judgment.

Mr. KELLEY. That is fairly recent. It says:

WASHINGTON, D. C., *February 10, 1922.*

MY DEAR MR. BUTLER: Referring to your telephonic request of January 7, 1922, to be furnished a statement showing the number of civilians, officers, and enlisted men stationed at each navy yard, naval station, or other shore activity, of recent date, made upon the Bureau of Yards and Docks—

Captain WILLIAMS. That is what I am talking about.

Mr. KELLEY (reading):

There is transmitted herewith the information requested.

Then it is headed January 1, 1922.

Captain WILLIAMS. I think that is the annual report of the Bureau of Yards and Docks for the year 1921.

Mr. KELLEY. It is signed "Edwin Denby, Secretary of the Navy." Then it says, "January 1, 1922, statement showing the number of officers and enlisted men (Navy and marine) and civilians stationed at each navy yard, station, and other shore activity." Then it goes on with the list. You mean to say we can not rely on that as being correct statement of facts?

Captain WILLIAMS. Apparently not. It was used for another purpose. That was a list of shore stations. There might be stations on shore that the Bureau of Yards and Docks would not know anything about, might not come under the bureau. You asked the Bureau of Yards and Docks for personnel information. That thing has been in existence now for two or three years and has not been cognized. That is a copy of it.

Mr. KELLEY. If there is any erroneous statement in it, I would like have you point it out.

Captain WILLIAMS. I think there were 20 pages of the original which was made up for that purpose, the appropriation "Maintenance, yards and docks."

Mr. KELLEY. When you send these things up here like that, printed by the proper committee, signed by the Secretary of the Navy, with all the stations named and all the number of men set down opposite each one, what do you expect the layman up here to do, to accept the figures as truthful?

Captain WILLIAMS. That is absolutely right in answer to the question upon which it was based. It is absolutely wrong in answer to the question which I am answering. The question upon which that was based was for the Bureau of Yards and Docks, to give information of the men at shore stations, which they had cognizance of. They prepared that for the Naval Committee. The Naval Committee was on a totally different track then.

HOSPITAL FORCE.

Mr. KELLEY. What about the hospitals?

Captain WILLIAMS. Now, for the hospital business, you remember that the law is peculiar in regard to the hospital personnel. The hospital personnel is designated as $3\frac{1}{2}$ per cent of the enlisted force of the Navy, plus the enlisted force of the Marine Corps, and it is specified that it shall be in addition to the personnel allowed in the Navy and in the Marine Corps. The whole element, as stated yesterday, does not exceed 15,000, and we counted the Hospital Corps men in the 15,000. This 1,645 men, the number I have down here as Hospital Corps men, plus the number of Hospital Corps men at sea, which I put down as 680, will be 890 men short of those allowed by the present statute law. Do I make myself plain?

NUMBER OF HOSPITAL CORPS MEN ON HAND NOW.

Mr. KELLEY. How many Hospital Corps men do you have right now?

Captain WILLIAMS. We have an operating force of 1,978.

Mr. KELLEY. That is the number you are using now when you have thousands of war-risk patients in your hospitals? You do not expect us to pay for those patients out of appropriations for the Navy, when you are collecting that cost from the Veterans' Bureau?

Captain WILLIAMS. We have not got it yet.

Mr. KELLEY. You have \$4.20 per patient for everyone you take in.

Captain WILLIAMS. But we have less than $3\frac{1}{2}$ per cent of the enlisted personnel of the Navy and Marine Corps in the hospital service.

Mr. KELLEY. If you have 1,978 now, you will not need more than 1,600 next year.

Captain WILLIAMS. That is the total in the hospital service, but we would have to have an additional number to make up the $3\frac{1}{2}$ per cent allowed by law.

Mr. KELLEY. You do not want to make up the $3\frac{1}{2}$ per cent unless you need it.

Captain WILLIAMS. I only call your attention to the fact that at this time we have included that $3\frac{1}{2}$ per cent in the 15,000 and in the 50,000, and we have not carried out the present law making that number additional.

NUMBER OF HOSPITAL CORPSMEN REQUIRED.

Mr. KELLEY. If you have only 1,900 men in the hospital service now, the basis of 100,000 men in the Navy, you certainly will not need more than 1,600 men next year with the greatly reduced personnel. I think you have worked that out pretty well, although, perhaps, you have made it more than you should have done. You say you have 1,600 men in the hospital service now, in round numbers, and this gives you 1,637.

Captain WILLIAMS. What I am talking about is the fact that I have counted the 1,645 men in the 15,000.

Mr. KELLEY. I know that.

Captain WILLIAMS. Unless the law is changed, this number, instead of being 15,000, would be 18,000.

Mr. KELLEY. We can take care of that. When we have appropriated money for what you actually need, we will be very comfortable.

TOTAL ENLISTED PERSONNEL AT SEA AND ON SHORE JANUARY 1, 1922.

Is there anything else?

Admiral COONTZ. No, sir; except that I think the shore station organization should be cleared up. On the 1st day of January there were about 67,000 men afloat and 35,000 or 36,000 ashore.

Mr. KELLEY. We will try to find out about that when the captain appears on the question of the enlisted strength.

Mr. BYRNES. Did you cover the 28,000 men on shore?

Mr. KELLEY. There was a figure given of 28,000 men on shore.

Captain WILLIAMS. The number is 28,799 plus 4,062 in transit.

Mr. KELLEY. That includes 8,000 replacements?

Captain WILLIAMS. Yes, sir; it includes men in training, general detail, and in transit. We had 82,000 first enlistments in the Navy at July.

Mr. KELLEY. How many first enlistments did that 28,000 include; how many apprentice seamen, and how many were under training?

Captain WILLIAMS. About 5,310.

Mr. KELLEY. As of what date?

Captain WILLIAMS. January 1.

NUMBER OF MEN IN TRAINING.

Mr. KELLEY. They were all under training?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. They were in trade schools?

Commander LEAHY. Trade schools and training stations. There were 1,334 in special schools, and the 3,976 under training. There was a total of 5,310 men under training.

Mr. KELLEY. What do you use 6,430 men at Hampton Roads for?

Colonel ROOSEVELT. That is the training station.

Mr. KELLEY. You have 1,949 men at the Great Lakes.

Captain WILLIAMS. There are some at district headquarters.

Mr. KELLEY. Give the number in training.

Captain WILLIAMS. At this particular time?

Mr. KELLEY. At any time.

Captain WILLIAMS. At Hampton Roads, 2,872 were under training. There were in addition in the trade schools, at that time, men. We had as overhead at the training stations 928 men and overhead at the trade schools of 54.

Mr. KELLEY. You had 928 men taking care of 3,000 students?

Captain WILLIAMS. We have had a very great many more than that. At that particular moment we happened to have only 2 but we have had, and usually have, more than 2,872 in training. When the number gets down to that minimum we clear up the overhead.

Mr. KELLEY. You send the men out to the ships?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You can take out 500 or 600 men from there at any time?

Captain WILLIAMS. Yes, sir.

OFFICE IN CHARGE OF ENLISTED MEN.

Mr. KELLEY. Who is responsible for the number of men at the stations?

Admiral COONTZ. The answer comes back to the Secretary of the Navy.

Mr. KELLEY. I know that he is at the head of the whole thing who has charge of the shore establishments of the Navy.

Colonel ROOSEVELT. I have as much to do with it as anybody.

Mr. KELLEY. But there is somebody under you.

Colonel ROOSEVELT. There has not been anybody under this administration in direct charge of it. Since this administration came in some time about last August, Captain Willard was put in charge as an aid to the Secretary. He was appointed aid to the Secretary in charge of navy yards. His functions, however, are not administrative, but are simply advisory. He will present plans or check up things; but all the orders come directly from the Secretary or myself.

Admiral COONTZ. Do you mean the enlisted force, Mr. Chairman?

Mr. KELLEY. Who has charge of the enlisted men?

Admiral COONTZ. Rear Admiral Thomas Washington.

REASONS FOR PRESENT ESTIMATED COMPLEMENT.

Mr. KELLEY. How do you know that you need that many men at these stations?

Captain WILLIAMS. We have reports up there in the bureau. It is something that it watched over by all of us, and it is certainly the object of every man in that bureau to reduce that force to the lowest possible limit. We have taken up several questions here and discussed them, and they have been gone into as deeply by the bureau as we knew how to go. We have cut off every solitary man that can be possibly sent to sea. It is only after those efforts, which are going on all the time, and against the protest of people outside of the bureau in coordination with the efforts of those various officers away from here and the various special activities, that the bureau finally decides to leave those men whom you see here. We have minute reports of who they are, where they are, how long they have been there, and what they are doing. That matter is the subject of the most con-

and minute study of the entire enlisted branch of the Bureau of Navigation. That is something that goes on constantly, and we are here primarily to see that these men on shore duty are reduced to the minimum. Before you can thoroughly understand these figures before you can pick any different men and hold them up, you have got to admit certain general conditions which affect this problem. You have got to realize that you can not ship men, trained men and untrained men, as you do material. If you look back upon the time for the last three years you will see that we have discharged enlisted men above the number and have then enlisted men in excess. You will see that each one of these peculiar elements enter into the enlisted personnel, and that it has its bearing on this force ashore.

Now, let us suppose that you have a standard number of average trained men, which you have not got and which you will not have until things settle down, and you would not require these 980 men at Hampton Roads. You would not be required to be training torpedo men all the time, but as long as you enlist men one day and discharge them the next, you must keep these training activities going. That is what accounts for so much of these activities on shore. We have investigated as minutely as we could the duties of these people, man by man and place by place, and this is the result.

Mr. KELLEY. Is there anybody in your department who visits these places and who looks into the conditions for himself? You simply have the reports, do you not? The men from whom you get the reports are interested in having these men continued on the job.

Captain WILLIAMS. Not at all; wherever we suspect that there is the possibility of a change, we make it. We send a board of officers, one being from Operations and one from the Bureau of Navigation, and they go into the duties of these men.

Mr. KELLEY. Is it your experience that every man you cut off is removed under protest?

Captain WILLIAMS. Absolutely.

Mr. KELLEY. Of course, they are human. When you rely on those reports it does not signify anything at all.

Captain WILLIAMS. We do not rely on such reports alone, but we rely on the reports plus the verbal contact that we have with the officers in charge and the personal inspection that is made from time to time by officers of the bureau.

Mr. KELLEY. Now, if during the coming year the element of training should develop to be a little less than required heretofore—

Captain WILLIAMS (interposing). Let us start with that assumption, but before reaching a conclusion—

REDUCTION OF TRAINING SCHOOLS.

Mr. KELLEY (interposing). You intend to practically close up a lot of stations, do you not, this coming year?

Captain WILLIAMS. We will have to.

Mr. KELLEY. Including training schools?

Captain WILLIAMS. We will have to.

Mr. KELLEY. There is no use in keeping them up.

Captain WILLIAMS. You say there is no use, but we have got to it if the 65,000-men program goes through.

Mr. KELLEY. With the reduced Navy you are going to keep all those stations in nothing more than a cold-storage condition.

Captain WILLIAMS. That is true.

Mr. KELLEY. Will not that make a considerable difference?

Captain WILLIAMS. All of that has been arranged under the list that we are talking about. You know what took place at the Great Lakes, and you know what took place at Hampton Roads. In all this place we have allowed only 280 caretakers to look out for all that property. You remember that six months ago we were told to let them fall down. Those were the instructions we got from the Naval Affairs Committee. They told us to let the property fall down and let the plumbing deteriorate. Now, they are talking about turning it over to the Veterans' Bureau. You have got a certain number of men in the Navy, and you are talking here, purely as a mathematical proposition, about reducing it to 65,000 men. Now, you are going to close the training stations and, perhaps, the trade schools. How are we going to reduce? Which method will we follow? Are we going to have 65,000 men on July 1, 1923? In that case we will, of course, have to begin recruiting very soon. We will have to open training schools for the new recruits, and we must figure on training in trade schools after the 1st of July. Will we follow the method of allowing the number to fall off as discharges come about, so that we will have an average of 65,000 men for the year, as we did two years ago, when we reached an average of 120,000 men? If you are going to have an average of 65,000 men throughout the year, you will have more than on the 1st of July, but on the 1st of July, 1923, you will have very much less than 65,000. If we were going to do it that way, we would not need to do any recruiting, perhaps, until November or December, but at that time we would start recruiting, and we would have to start the trade schools as the new men came in.

Mr. KELLEY. In answer to your question, I would expect the efficient Secretary of the Navy to work out the best and most economical system under which to carry out the will of Congress and have a strength of 65,000 men on the 1st day of July. Of course, the Secretary of the Navy is under some difficulty in doing that, because this bill probably will not become a law immediately, even after it passes the House. Therefore that is a question that you will have to consider. I think we had better leave that particular question until we take up the matter of the expiration of enlistments, so that we may know exactly how they will go out.

REDUCTION OF SHORE-STATION ACTIVITIES.

Admiral. I think you had some particular method in mind for reducing the shore-station activities.

Admiral COONTZ. We have reduced certain stations, and if the Navy should by any chance be reduced to 65,000 men a number of shore stations would probably be closed. You would have a limited saving on account of the shore stations, but I agree with what Captain Williams says in regard to that; that is, that it will require a law to get rid of these men before the 1st of July. Then, on the 2d day of July we will have to commence recruiting, and the green men who are recruited will have to be trained.

Mr. KELLEY. I understood Captain Williams to state the other day that these men who have been in the Navy are standing around waiting to be reenlisted, and you will not have to train them at all.

Captain WILLIAMS. You misunderstood me. These men are standing around the recruiting stations waiting to see what will happen before they reenlist.

Mr. KELLEY. That is practically the same thing.

Captain WILLIAMS. These are trained men.

Mr. BYRNES. What do you mean by that statement?

Captain WILLIAMS. Let us suppose the case of a machinist, who has been brought from home at Government expense and trained in a Government trade school, and he goes aboard a ship. At the expiration of his four years' enlistment, he goes out into civil life, and there are a number of those men who are lying around the recruiting offices refusing to reenlist until they find out what is going to happen to the Navy personnel.

Mr. KELLEY. How does that differ from what I said?

Mr. BYRNES. Why should they hang around to see what is going to happen to the Navy personnel?

Secretary DENBY. They may think that they will have a chance for promotion, better pay, and that sort of thing.

Mr. BYRNES. I can see their reason for standing around waiting on account of the matter of pay, but I did not understand the other part of your statement to the effect that they were standing around to see what would happen to the Navy personnel.

Captain WILLIAMS. In the matter of pay, promotions, and everything else.

DISTRIBUTION OF PERSONNEL BY CLASSES.

Mr. KELLEY. Captain Williams, I would like to have you study pretty carefully the distribution of the personnel of the Navy by classes. If there is to be a reduction, of course, it should not all be from the bottom, but it should come all the way down. I should like to have you work that out pretty carefully.

Captain WILLIAMS. I have studied that pretty carefully, and have some ideas on the subject.

Colonel ROOSEVELT. There have been two full surveys made of that question, and, in addition to what Captain Williams has said, there have been at least two other officers who have been making personnel studies.

Mr. KELLEY. With the new situation, and with the taking out of these old craft, there will be some further surveys to be made. This will be a wholesale job requiring a resurvey, following the scrapping of so many battleships and other craft.

WEDNESDAY, MARCH 15, 1922.

Mr. KELLEY. Admiral Coontz, you were going to have an appropriation of the 50,000 men prepared.

Admiral COONTZ. The Secretary has not had time to go over it, Mr. Chairman. He has been before the other committee, and he has had to have it postponed until he could get around to it.

Colonel ROOSEVELT. The rough draft is ready, but the Secretary has not had time to go over it.

Mr. KELLEY. I thought it would be helpful to us to have it before us.

Admiral COONTZ. It will be submitted as quickly as possible.

Mr. KELLEY. We have with us this morning the Assistant Secretary of the Navy, Admiral Coontz, Captain Williams, and their assistants. I think we will hear Captain Williams first.

Captain WILLIAMS, how many men have you in each rating, beginning with the highest enlisted rating in the Navy and going right down to the lowest?

NUMBER OF ENLISTED MEN ON HAND IN NAVY BY RATINGS.

Captain WILLIAMS. Chief petty officers, permanent, 8,420; chief petty officers, acting, 3,112; petty officers of the first class, 12,124; petty officers of the second class, 10,865; petty officers of the third class, 10,172; firemen of the first class, 3,827; firemen of the second class, 5,528; firemen of the third class, 7,522; nonrated men, first class, 12,248; nonrated men, second class, 15,072; nonrated men of the third class, 773; cabin stewards and cooks, 778; wardroom stewards and cooks, 591; steerage stewards and cooks, 102; ward officers' stewards and cooks, 201; mess attendants, first class, 1,607; mess attendants, second class, 1,060; mess attendants, third class, 1,117; making a total of 95,118 as of March 13, 1922.

Mr. KELLEY. How could you get this up so close to date?

Captain WILLIAMS. I do not say it is so close.

Mr. KELLEY. That is the date on which you prepared this paper?

Captain WILLIAMS. That is the date on which we prepared this paper.

Mr. KELLEY. It was prepared upon what data?

Captain WILLIAMS. It was prepared upon the best data available.

Mr. KELLEY. How recent?

Captain WILLIAMS. It was prepared from data that we have in the office up to date.

Mr. KELLEY. You would naturally be behind on promotions that were made on shipboard?

Captain WILLIAMS. We have a technical word which we call "lag." It means that we can not be absolutely up to date, not only in the matter of promotions but in other ways.

Mr. KELLEY. How far behind will the office down here be?

Captain WILLIAMS. I should hate to estimate, because it would be a very rough guess for reasons that I explained the other day.

Mr. KELLEY. A couple of months?

Captain WILLIAMS. It might be in some cases more than that, and in some cases it might be absolutely up to date. The character of the data is such, of course, that it is based largely upon reports sent in by mail, and the more widely scattered the force the greater the variation you must allow for it. That is what we call "lag," but this statement, subject to the "lag," is as accurate as any, or more accurate than we have ever had before.

Mr. KELLEY. Do you know how many enlistments expire in each of those ratings?

MEN DISCHARGED, DESERTED, RETIRED, DEAD, 1918, 21.

Captain WILLIAMS. I have data covering the expirations of enlistments. As for the expiration of enlistments for the fiscal year ending June 30, 1923, I have it in several different ways, but I see I have not got it in the way you want it. You want the expirations ratings?

Mr. KELLEY. Yes. My recollection is that that is a very difficult thing to compile.

Captain WILLIAMS. Yes, sir; it is difficult. We have compiled it by months, for July, August, etc., up to June. This shows three-year enlistments, four-year enlistments, expirations of second-year enlistments, minority, etc. That is tabulated, but I have not got it by ratings.

Mr. KELLEY. Have you the number of enlistments of two-year men, three-year men, and four-year men?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How many four-year enlistments are there now in the navy? Have you that information?

Captain WILLIAMS. Yes, sir. I want to get this part very accurately, because the foundation is very important for the structure.

Mr. FRENCH. I wonder if the expirations of enlistments would run approximately according to the number of men in each one of those classes?

Captain WILLIAMS. No, sir; I do not think so.

Mr. KELLEY. The long enlistments are in the upper ratings, probably.

Captain WILLIAMS. Perhaps so and perhaps not. I think we would likely lead ourselves into false conclusions if we adopted any average. I would like to show you this table that we have gotten up.

Mr. KELLEY. Suppose you go ahead in the most illuminating way you know how, and if you do not throw all the light upon the subject that is desired, we can ask for more.

Captain WILLIAMS. Meanwhile, perhaps this table would be interesting to you. This is the most complex piece of statistics we have ever produced. That gives them by fractions. The point I would like to call attention to in that table is that it includes not only expirations of enlistments, but it also includes actual discharges for other causes, deaths, desertions, etc., and that is the history of the enlisted personnel as far as our records have been able to reach.

Mr. KELLEY. I think it is a fine table, and we will put it in the record. This is a table showing the losses by months from various causes for 1921.

Captain WILLIAMS. It is very conservative and has been carefully checked. I do not think you could do better than to have that table printed.

(The table referred to is as follows:)

Men separated from the naval service from November 11, 1918, to December 31, 1921.

	Dis- charged.	Deserted.	Retired.	Dead.	Total
Nov. 11 to Nov. 30, 1918.....	8,185	536	13	628	9,362
1919.....	167,059	9,537	142	1,000	177,738
1920.....	39,680	12,777	51	681	53,189
1921.....	67,360	8,013	83	500	75,956
Total.....	282,284	30,863	289	2,809	315,445

	Dis- charged.	Deserted.	Retired.	Dead.
1918.				
Nov. 11 to Nov. 30.....	1,283	100	0	
December.....	6,902	436	13	
1919.				
January.....	13,830	597	9	
February.....	17,394	737	24	
March.....	13,970	607	12	
April.....	9,902	683	12	
May.....	7,863	836	14	
June.....	10,798	812	16	
July.....	17,952	710	15	
August.....	24,027	831	6	
September.....	25,883	741	13	
October.....	17,983	963	6	
November.....	12,461	985	6	
December.....	8,826	1,035	9	
1920.				
January.....	4,662	898	7	
February.....	2,753	765	3	
March.....	3,448	882	6	
April.....	2,816	804	5	
May.....	2,982	682	6	
June.....	2,828	937	5	
July.....	4,521	917	3	
August.....	5,746	927	5	
September.....	3,688	1,058	3	
October.....	2,547	909	3	
November.....	2,668	1,053	2	
December.....	1,021	2,945	3	
1921.				
January.....	3,824	1,413	4	
February.....	7,412	1,141	1	
March.....	9,130	696	2	
April.....	3,511	626	5	
May.....	3,384	494	6	
June.....	7,899	630	1	
July.....	6,194	663	5	
August.....	9,270	666	28	
September.....	5,621	518	7	
October.....	3,078	457	9	
November.....	1,949	379	10	
December.....	6,098	328	5	
Total.....	282,284	30,863	289	

SUMMARY OF LOSSES BY DATE OF RECEIPT IN BUREAU, 1921.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
d.....	1,413	1,141	698	626	494	630	663	666	518	457	379	328	8,031
ble.....	786	388	239	460	915	6,069	4,063	4,233	2,708	1,420	773	962	23,016
ry.....	76	26	5	12	7	0	357	254	158	167	65	29	1,136
.....	64	34	24	15	51	31	52	101	54	57	39	46	568
.....	568	674	445	287	312	126	160	88	72	41	40	45	2,888
.....	824	1,518	1,647	807	532	251	370	460	308	281	183	210	7,392
.....	316	341	717	587	464	281	402	455	386	336	283	318	4,986
.....	228	299	478	338	173	143	110	206	175	164	236	181	2,746
ir.....	354	402	287	291	266	235	242	449	370	212	161	198	3,452
.....	1	2	4	2	0	0	3	1	0	0	1	0	14
rd.....	2	2	3	1	4	3	0	6	0	0	0	0	21
.....	353	3,612	5,272	657	579	719	414	3,008	1,387	392	157	4,102	20,652
d.....	252	14	9	54	81	31	21	9	2	8	11	7	499
.....	4	1	2	5	6	1	5	28	7	9	10	5	83
.....	64	59	84	44	40	38	29	36	38	23	24	21	500
total.....	5,305	8,613	9,914	4,186	3,924	8,558	6,891	10,000	6,184	3,567	2,362	6,452	75,956

DESERTIONS BY DATE OF RECEIPT IN THE BUREAU, 1921.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
.....	8	6	3	6	5	11	4	1	7	8	3	2	64
.....	129	92	73	80	61	75	90	118	85	95	62	60	1,020
.....	240	305	130	83	53	41	48	42	32	12	17	29	1,012
.....	394	294	166	121	107	185	200	203	134	143	107	99	2,063
total.....	771	697	372	290	226	212	342	264	258	258	281	170	4,159

SUMMARY OF LOSSES BY DATES OF RECEIPT IN BUREAU.

	1919		1920											
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
.....	985	1,035	898	765	882	804	682	937	917	927	1,058	909	1,053	1,021
.....	9,628	5,910	2,762	1,353	1,386	1,073	1,243	3,388	3,143	4,286	2,151	1,625	935	816
.....	1,887	1,916	295	104	80	74	45	54	135	123	62	61	56	57
R.....	45	42	43	35	56	58	51	63	72	47	58	60	53	57
.....	44	8	13	12	12	12	11	22	132	249	266	317	348	442
.....	716	605	544	389	652	514	577	439	226	257	244	225	281	310
.....	232	281	265	180	386	276	228	213	154	178	189	185	234	217
.....	180	191	88	97	169	180	194	142	140	87	191	174	176	329
.....	402	394	239	323	439	388	362	302	276	354	353	338	353	394
.....	8	22	11	4	2	4	4	4	1	1	3	2	.....	.....
.....	440	382	372	233	222	180	208	226	190	112	96	85	151	134
.....	25	22	25	22	39	47	57	37	50	52	84	77	131	189
.....	64	64	5	1	5	1	2	1	2	.....	1	.....	.....	.....
.....	6	9	7	3	6	5	6	5	3	5	3	3	2	3
.....	36	42	27	146	162	78	54	27	29	36	26	36	21	39
total..	13,634	9,923	5,594	3,667	4,498	3,703	3,724	5,860	5,470	6,714	4,775	3,495	3,744	4,005

active recruiting.

SUMMARY OF DESERTIONS BY DATES OF RECEIPT IN BUREAU, 1920.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Total.	Nov.	Dec.
(all kinds) ..	13	7	12	1	9	9	5	8	11	8	83	14	8
.....	86	53	87	85	80	92	94	112	108	83	880	103	78
seamen.....	226	242	217	249	157	199	171	193	201	204	2,059	233	239
.....	228	145	203	151	153	210	245	204	268	187	2,003	218	187
total.....	553	447	519	486	399	519	515	517	588	482	5,025	568	512

Mr. KELLEY. You can put in your estimate for 1923 based upon any definite number of men, I suppose, in the same manner?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Based upon a certain date and brought down to a certain date?

Captain WILLIAMS. With this difference, that that table there is all history, and our estimates are part prophecy. That is the first time we had the actual facts; and, I think, that runs back to 1918.

Mr. KELLEY. You have given us here a total of 95,118 men in the Navy by ratings on the last available date?

Captain WILLIAMS. Yes, sir.

ESTIMATED NUMBER OF MEN THE NAVY WILL LOSE IN MARCH, APRIL, MAY, AND JUNE, 1922.

Mr. KELLEY. Now, how many men for all classes do you estimate you will lose during the month of March?

Captain WILLIAMS. That is another question; and I thought you started on the expirations of enlistments. This is not the same thing. I gave that as 2,175 for the month of March; for April, 2,271; for May, 2,448; and for June, 2,544.

Mr. KELLEY. That brings us up to the 1st of July?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Let us go right along with the next year by months.

Captain WILLIAMS. I am sorry I have not that.

Mr. KELLEY. You did not tabulate that at all?

Captain WILLIAMS. With some limitations—the further you go the less valuable the predictions. The predictions for March and April have a certain permanent value; but, when you go to September, October, and November, the prediction gradually decreases in value until it is almost valueless.

Mr. KELLEY. Of course, you know how many expirations there are in each month right along?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You know about what losses there will be from other causes each month?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Based upon your experience?

Captain WILLIAMS. No, sir; that is where we have fallen down for a long time. That is the important part of it. You have expirations of enlistments as one type of loss in the personnel; then, you have discharges for inaptitude; you have discharges for undesirability; you have bad-conduct discharges; you have dishonorable discharges; you have medical surveys; you have men on furlough, and you have men who die.

Mr. KELLEY. Is this what you are saying now, that the discharges for causes other than expiration of enlistments will be less, because you get out of the Navy the undesirables in the early months, or is there a constant factor of undesirability even in the same body of men?

Captain WILLIAMS. Like all percentages, a percentage by months would be of little value; a percentage based on two months would be a little better, and as the time increases the percentage would probably be better. Now, with normal conditions, and given a Navy of

80,000 men of average classes, ages, and types, in a little while, or a year or two years, you could determine the average, perhaps, of each one of those peculiarities, or the monthly average on each one of those questions you have asked; but in the last two years we have not had that standardized number or standardized type, and I am pretty well convinced that we should approach those averages with the very greatest caution and with the very greatest possible qualification. That is the reason I hesitate to give those figures. It is a very rough prophecy, and I understand why you want it.

Colonel ROOSEVELT. Does the figure you have already given represent the gross loss, or have you taken into account reenlistments?

Captain WILLIAMS. I have considered 50 per cent of reenlistments. Our assumptions are very numerous.

MONTHLY ENLISTMENTS.

Mr. KELLEY. In order that the information we get may have all the value possible, I will ask you this: How many enlistments will there be by months, starting on the 1st of July?

Captain WILLIAMS. This last figure I gave you brought the total down to 85,000. Now, assuming that we have the number at 85,000, I can give you the figures from July 1, 1922, to July 1, 1923.

Mr. KELLEY. All right; go ahead.

Captain WILLIAMS. This will run regularly, July, August, September, October, etc., and the numbers are as follows: 2,492, 2,504, 2,450, 2,562, 3,125, 3,376, 2,399, 2,347, 2,145—

Mr. KELLEY (interposing). What was the figure for January?

Captain WILLIAMS. Two thousand three hundred and ninety-nine; for February, 2,347; for March, 2,145; for April, 2,282; for May, 2,134; and for June, 2,038.

Mr. KELLEY. These are based upon expirations for all other causes?

Captain WILLIAMS. This takes into account a lot of assumptions. We have estimated the number in service for each month, and we have figured out the number of expirations during that month. We have assumed that 50 per cent of those men will reenlist, and we have then applied the losses from other causes, and the algebraic sum of that is the total loss. That is quite different from the same figures, without qualifications, that we were speaking about. The point I want to give you is the fact that the losses include 50 per cent of reenlistments.

Mr. KELLEY. These figures now include the expirations, and they cover your best judgment as to other losses?

Captain WILLIAMS. Yes, sir.

TOTAL ENLISTMENTS FOR FISCAL YEAR 1922-23.

Mr. KELLEY. What do they total?

Captain WILLIAMS. Thirty thousand eight hundred and seventy-four. That is for a year.

Mr. FRENCH. That includes only the reenlistments, without any other additions. Does it include the reenlistments?

Captain WILLIAMS. Yes, sir.

Mr. FRENCH. Reenlistments, but not new enlistments—is that right?

Captain WILLIAMS. It includes 50 per cent reenlistments.

Mr. FRENCH. But no new enlistments?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Does this include 50 per cent reenlistments right from the beginning of the table?

Captain WILLIAMS. Yes, sir.

Mr. FRENCH. But that does not include reenlistments from now until the 1st of July, or the table you gave us first did not?

Captain WILLIAMS. The table I gave at first is exactly the same. It follows the same rule.

Mr. KELLEY. This table showing the losses during a year and four months, and during the balance of this year and all of next year, shows approximately 40,000 men, and it includes the losses from expiration of enlistments and other causes, less reenlistments amounting to 50 per cent?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. So that, if you get back by reenlistments 50 per cent each month right along, the Navy would stand a year from next July at approximately 55,000 men?

Colonel ROOSEVELT. That is the net loss all the way through the year, as I understand it, Mr. Chairman.

Captain WILLIAMS. 54,537 is our best prophecy.

Mr. KELLEY. So you could reenlist half of those whose terms expire if you did not take in any new ones and the Navy would run down by the 1st of July, 1923, to 54,537.

Captain WILLIAMS. Within the limits of accuracy.

METHOD OF KEEPING NAVY AT AN AVERAGE OF 65,000 MEN.

Mr. KELLEY. What would be your policy, Captain? Suppose you were given an average of 65,000 for next year, taking the Navy as you have it at this moment and desiring, of course, to work it out to keep it in the most effective situation, how would you go about securing an average of 65,000 men after the 1st of July?

Captain WILLIAMS. May I reply to that by calling attention to the two most prominent ways of doing it, and, perhaps, the advantages and disadvantages of each? We want 65,000 men, speaking in round numbers, for the fiscal year 1923. There are two ways, perhaps, of doing it. One is by having 65,000 men on July 1, 1922, making up the losses that occur in 1923 and standardizing the quality of that personnel to the best of our ability. That is a problem the execution of which leads you into great difficulty, and the more thought I give the subject the more difficulties I find. We want 65,000 men on July 1, 1922, and the character and quality of our personnel at the present time is such that that seems the best way to go at it.

Let us say you open the gates for discharge and you encourage them in every way to leave the service, the men we have now, let us call it 95,000 in round numbers, and you get down to 65,000 men on July 1. That is a supposition. Let us say we have succeeded in doing it, that enough men will leave the service to bring it down to 65,000 on July 1; it is fair to suppose that the men who will go out are in the lower ratings, the men who have been there the least, the men who have less interest, who have less ties to the service: the higher ratings, the older men, the trained men, perhaps, will tend to remain; those men are

who have, many of them, been in the service long years, and it would be difficult, and perhaps undesirable, to run the Navy composed entirely of those men.

FEASIBILITY OF USING MEN OF HIGHER RATINGS TO PERFORM WORK OCCASIONED BY DISCHARGE OF NEW MEN.

Mr. KELLEY. There would be some positions that would be rather inferior to their rank.

Captain WILLIAMS. I am coming to that. It would be too expensive to start with, and for other reasons. Suppose we undertook to take that nucleus and form our personnel by reducing these men, putting them in lower ratings and by giving them work to do from which they in the past have graduated? I need not speak of the loss of morale. There are other phases, too, which must be given the careful consideration.

These men, in almost all cases, have been brought up with a feeling that there were certain obligations; that there were certain rights, legal rights, but perhaps not legal rights, which they acquired by their conduct, by good behavior, by faithful performance of duty, by all the things which have brought them where they are. I will not go into the details of that because I think the committee knows how complicated they are. It is not a question of referring the thing to the comptroller, but it is a question of referring the thing to the man himself. It leads you all through the right or wrong of recruitment, of vested rights, of experience, and all that sort of thing. You can readily see, without speaking any more of it, that we would have a very large number of men who would have to be either separated from the service or treated in a way which they would consider as injustice.

Mr. KELLEY. Let me put in one question right there, Captain. The present pay rates expire on the 1st of July?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I suppose that as to the men in the higher ratings it would make a great deal of difference whether that pay were increased or not, or whether it were materially modified.

Captain WILLIAMS. It would make the greatest difference in the world.

Mr. KELLEY. I figured the other day, after you had said that men were waiting around the enlistment places, that possibly they were waiting because of the fact that the question of pay had not yet been decided.

Captain WILLIAMS. Perhaps so, that and other things.

Mr. KELLEY. That would probably explain why they were waiting.

Captain WILLIAMS. Partly, perhaps.

Mr. KELLEY. By the way, you are not reenlisting for a shorter period than four years, are you?

Captain WILLIAMS. No, sir; this question is a very important one. Suppose you have solved that problem? It will take time to do it, and it will be an unfortunate period through which we will have to pass. We have got to start enlisting—

Mr. KELLEY (interposing). Just before you discuss the other side—

Captain WILLIAMS (interposing). I want to finish this.

Mr. KELLEY. You have not finished this one yet?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Of reducing it to 65,000 by July 1?

Captain WILLIAMS. No, sir. Suppose you reduce by July 1, have got down to 65,000. Now, you have got to start recruiting immediately.

Mr. KELLEY. You have done that?

Captain WILLIAMS. You have got to start your training immediately.

Mr. KELLEY. You said you have got to start recruiting immediately.

Captain WILLIAMS. Yes, sir.

AUTHORITY TO FURLOUGH MEN.

Mr. KELLEY. Just before you start in on that, let me ask a question. Here is the authority of law under which the Secretary of the Navy is authorized to grant furloughs, and I will read this so as to get it in the record:

The Secretary of the Navy is hereby authorized to grant furlough with pay to enlisted men for a period covering the unexpired portion of their enlistments: *Provided*, That such furlough be granted under the same conditions and in lieu of discharge by purchase or by special order of the department. Enlisted men so furloughed shall be subject to recall in time of war or national emergency to complete the unexpired term of their enlistment, and shall in addition to the authorized number of enlisted men of the Navy.

You can not recall a furloughed man except in case of war: is that right?

Captain WILLIAMS. I think you can recall him at his own request. I have considered that phase of it slightly, and I do not think that is the cure, but I am not prepared to say. The question I am speaking of is a very difficult question.

Mr. KELLEY. I know, but if there were no other obstacles in way and you could furlough a man until you needed him, and then call him back to take the place of expired enlistments, or something of that kind, you would not meet the obstacles you spoke of as a way about starting up your recruiting and all that.

IMPRATICABILITY OF FURLOUGHING MEN TO REDUCE SIZE OF NAVY.

Captain WILLIAMS. I have thought of that, but I do not believe it is practicable, and I think you are asking too much and giving too little.

Mr. FRENCH. Would there be any sort of pay for the furloughed men?

Colonel ROOSEVELT. After they get settled in other business they could not get them back.

Mr. BYRNES. You would have to assume they would not get into any other business, I suppose, and that is the trouble.

Mr. KELLEY. You would have no trouble under this of furloughing your men; you could pick out your men under this provision could you not?

Captain WILLIAMS. I do not think we could do that; you certainly could not do it without legislation.

Mr. KELLEY. Why not? Suppose you gave him to understand that while he was furloughed, at the same time he would not be called back?

Captain WILLIAMS. I do not think the average man would take any such contract, to force a man to go on furlough and tell him you would not call him back; he would get a job in civil life.

Mr. KELLEY. Suppose you told him you would not call him at all, you could furlough him?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You were saying you had experienced some difficulty in getting rid of particular men.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That the ones at the bottom would go and the ones at the top might stay, but it seems to me under that act you have authority to pick out any you wanted and furlough them for the rest of their enlistment.

Captain WILLIAMS. Indefinite furloughs without pay?

Mr. KELLEY. Yes.

Captain WILLIAMS. And then call them back?

Mr. KELLEY. At the same time telling them you do not intend to call them back at all.

Captain WILLIAMS. I think you make a bad situation worse.

Mr. KELLEY. Why? For instance, you have here, Captain—

Captain WILLIAMS (interposing). Let us take the principle of indefinite furlough.

Mr. KELLEY. Just a second until I get our minds together. You have here 8,420 chief petty permanent officers?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You might not want that many with a Navy of 10,000, and under that act you would have full authority to furlough those men.

Captain WILLIAMS. Without pay?

Mr. KELLEY. Without pay, and notify them that you would not expect them to come back at all.

Captain WILLIAMS. That is the difficulty I am speaking of.

Mr. KELLEY. And, then, you could pick out the ones in each rating that you did not need under the furlough system.

Captain WILLIAMS. That is the exact difficulty; whether you furlough them or discharge them makes little or no difference to the end.

AUTHORITY TO DISCHARGE MEN.

Mr. KELLEY. Would you have authority to discharge outright?

Captain WILLIAMS. Yes, sir; we have the legal right.

Mr. KELLEY. Then the thing is as broad as it is long.

Captain WILLIAMS. There is not any difference, but the point is we have never discharged these men in the Navy except at their own request or except as a punishment, and that is the law these men have had read to them every month.

Mr. KELLEY. There is no trouble about getting the whole number down, as I take it, but the trouble is in getting down the number by grades, the proportion in each grade.

Captain WILLIAMS. I have more troubles to voice; I have not finished this first proposition.

Mr. KELLEY. You would not have any difficulty in reducing the Navy to 65,000 if you let everybody go who wanted to go, but to keep your grades proportionate might be a little more difficult.

Captain WILLIAMS. No, sir; that is not the whole story.

Mr. KELLEY. Well, give us the rest of it.

Captain WILLIAMS. In the first place, a man's enlistment record, as a matter of pure legal right, contains the clause, "unless sooner discharged by proper authority." That has never been exercised with these men, except they have been discharged as a punishment, at their own request, or for bad conduct.

FURLOUGH OF MEN AT THEIR OWN REQUEST.

Mr. KELLEY. You have furloughed men except upon their own request, have you not?

Captain WILLIAMS. We have not furloughed them except at their own request.

Colonel ROOSEVELT. I am no lawyer, but this act says the Secretary of the Navy is authorized to grant a furlough without pay. Now, I should think that word "grant" might be held by the courts as not giving the Secretary of the Navy the right to impose a furlough, but that he would have to do it at the request of the individual, if he saw fit.

Mr. BYRNES. The trouble is the proviso says it shall be in lieu of discharge.

Colonel ROOSEVELT. An individual might have requested a discharge, and the Secretary of the Navy might be unwilling to give the discharge, because that severs him completely from the Navy. However, he might be willing to grant a furlough without pay, which still leaves the Navy the option of calling the individual back in time of war.

Commander HILL. And that act was passed before we entered the war, and undoubtedly that was the intent of it. It was the act of August 29, 1916.

Colonel ROOSEVELT. I think that is the situation. You see you get rid of him for good and all. Suppose we thought there was a possibility of a war within a year and some of our important petty officers wanted to be discharged to go into business, the Secretary of the Navy might say, "No; I do not want to discharge you; we might want you when a war begins, but I will give you a furlough, which will let you engage in that business, and then if a war comes we will call you back." That is my interpretation of the situation, although I may be wrong.

Mr. KELLEY. There is no question as to the authority of the Navy Department to discharge outright, and this would be a milder method than discharging, so I am inclined to think that might be construed as giving authority to the Secretary to act independently of any application, but of course lawyers differ just as much as naval officers, and that is going quite a little.

Captain WILLIAMS. I was only suggesting many of these things so that you might get the idea that after all this figuring is done it may be necessary to design some personnel legislation that will put this thing into effect in the proper way. You do not want to throw these people out, men who have been 15 and 20 years in the service.

and you do not want to force them on the Naval Reserve against their will. What personnel legislation we may need remains to be seen, and this is very preliminary.

Mr. KELLEY. We can take care of that on this bill if it involves a reduction. Under the rules of the House a reduction in the number of offices or men can be provided for an appropriation bill.

Captain WILLIAMS. But this is not exactly a case of reduction; it is a question of how the reduction shall be carried out.

Mr. KELLEY. I know; but all collateral propositions can go with the main proposition of reduction.

NUMBER OF MEN NECESSARY TO BE KEPT IN TRAINING TO REDUCE NAVY.

Captain WILLIAMS. I think the next thing you wanted is what happens next. We are always talking about proposition 1. 65,000 men in July 1, and we have not departed from that.

Mr. KELLEY. You have finished the first proposition by getting rid of them between now and July 1.

Captain WILLIAMS. No, sir; I have not finished this. I have put it down in the form of a note and I will ask to read it, and maybe it will save time. Assuming that we will be at a strength of 65,000 men on July 1, and that the voluntary discharges to reach this number would be about 21,000 men, all to come from the 1923 fiscal year discharges, there would still be a loss by expiration of enlistment, in 1923, of 20,000 men. In addition to the foregoing, it is estimated that the losses during that year from other causes than expiration of enlistment would be about 8,000 men, or, in other words, there would have to be a total displacement of 28,000 men. Assuming in round numbers that there would have to be a replacement of 2,400 men per month—I do not like that word—and that each man would spend at the training station two months plus two weeks in travel time in reaching the training station after recruiting and in traveling from the training station to his ship, we would have to have an average of 6,000 men at the training stations throughout the fiscal year. Is that plain?

Mr. KELLEY. No. Six thousand men graduated every two months would give you 36,000 men.

Captain WILLIAMS. I have accounted for 28,000, and that would be 4,500—no; that is wrong; we have not allowed for the two weeks.

Mr. KELLEY. Would that throw it off that much?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Let us cut the two weeks off and give them two months there.

Captain WILLIAMS. They would not get warm in that time. Estimating an additional 1,000 at the training stations as a permanent personnel for training purposes and for recruits for the fiscal year an average of 7,000 men per month at training stations, which is in addition to the 15,000 which have been allowed by operations in the 1,000 navy.

Mr. KELLEY. You will get this into the latest work of fiction if you keep on.

Captain WILLIAMS. No; I am digging it out. To state this problem another way, if this were the first cut we had had in three years, would be a different problem, but cut after cut has taken place

since demobilization. Now, we are dealing with personnel not dealing with matériel. What is the result of this thing? This year we have been struggling along on something less than 100,000. Now, call it 100,000. Over 50 per cent of those people are in enlistment. That means a great many things, but it means an other things that 50,000, or 50 per cent of those people go out at same time, or almost at the same time. I think that we must a between now and July 1 in the fiscal year 1923 forty-odd thousand men; that is, for the fiscal year 1923, and you can not take off 40 men and assume you are going to take those off the 96,000 and others left.

Mr. KELLEY. You have not run the training schools very extensive this year, have you? You have only had two or three thousand training?

Captain WILLIAMS. Yes.

Mr. KELLEY. And you consider that enough with 100,000 men Captain WILLIAMS. That has nothing to do with the 100,000 men.

Mr. KELLEY. Just answer me directly. You have enough at training schools with 100,000 men?

Captain WILLIAMS. That has no connection with it.

NUMBER OF MEN LEAVING NAVY DURING PAST YEAR.

Mr. KELLEY. How many men have left the Navy during this year?

Captain WILLIAMS. At training schools—

Mr. KELLEY (interposing). Never mind the training schools. How many have left the Navy during the last year?

Captain WILLIAMS. That is a direct relative of the \$77,000,000 pay of the Navy.

Mr. KELLEY. How many men have left the Navy during the year?

Captain WILLIAMS. It has nothing to do with it, but I can give to you.

Mr. KELLEY. Well, give it to us. I remember it was estimated 40,000 at least would leave after the 1st of July during this current year. When you were here last time and we were making the old bill it was estimated that there would be something like 40,000 dispirations of enlistment, and then there would be quite a number added to that. If you can take care of forty-odd thousand expirations of enlistment and have only 2,000 in the training schools, what is there in the situation next year that requires you to have so enormous training as you are talking about?

AVERAGE NUMBER OF MEN ON HAND IN NAVY DURING PAST YEAR.

Captain WILLIAMS. Let us go back to the time when we started these statistics, and you know they did not exist before 1918, did they?

Colonel ROOSEVELT. Captain, may I ask you to draw the chairman last point out a little more clearly? On July 1 of last year did not have 116,000 men in the Navy?

Captain WILLIAMS. On July 1 of last year we had the relic of what was left of an average of 120,000 men.

Colonel ROOSEVELT. That was 116,000, as I recall. Therefore, we've gone down 20,000 men.

Mr. KELLEY. No; you were authorized to keep 106,000.

Colonel ROOSEVELT. Yes; but we had to average it, so we are only 100,000 now.

Mr. KELLEY. You see, all you had to do was to come down from 116,000, as I recollect, on the 1st of July, to 106,000 during the year in order to keep your average right, and as there were only 10,000 men involved there, it would not change this training-school situation.

Colonel ROOSEVELT. I think it would materially. As I understand it, our cuts have been going along in this way: At the first of the fiscal year we were met with a bill from Congress saying that we must have only an average of, let us say, 100,000 men during the next year; we have not attempted to reach that figure for the first of the coming fiscal year, but we have gone down gradually over the entire year, so that whereas we had 116,000 to start the year, at the end of the year we would have 90,000 in order that the average might be the figure Congress set. Now, that materially lessens the number of men we would have in our training stations, and, you see, we have now gotten down to the point where, if we try to have, let us say, 90,000 men on the 1st of the coming July, we would have to cut down to the all-inclusive figure of 50,000 at the end of the year if we were going to run out in the same way, and the all-inclusive figure of 50,000 would change the figure, assuming that our figure on shore stations is correct, as to the number of men we would have in the fleet afloat at the end of the coming year from 100,000 to 35,000.

Mr. KELLEY. Here is what you have evidently done during the last year: You have made up your list by recruiting those that have already served in the Navy and that is what you are doing next year.

Captain WILLIAMS. Of course, to a large extent.

Mr. KELLEY. That eliminates the training school proposition almost wholly except for the few boys you need to scrub decks.

PERCENTAGE OF FIRST ENLISTMENTS, 1920-21.

Captain WILLIAMS. No, sir; that is not all. Mind you, the proposition I am talking about—you may call it scheme 1—of getting down to 65,000, is a scheme we have not tried, and ever since 1919 we have suffered from the application of the other system to our reductions. Now, the result of that is perfectly apparent. In 1919 the percentage of first enlistments was 26; in 1920, 31; and in 1921, 31; and it would take a very careful analytical study to show why that is the net result of these cuts.

DISTRIBUTION OF RATINGS IN DECREASING NAVY.

Mr. KELLEY. I think we have the general principles and the principal difficulties, but what I would like for you to submit, Captain, this number is established at 65,000, how are you going to distribute them in these ratings?

Captain WILLIAMS. This is the best I can do under the circumstances:

Chief petty officers (permanent appointment)----- 6,762

Mr. KELLEY. And acting?

Captain WILLIAMS. I left that out.

Petty officers, first class.....	10.1
Petty officers, second class.....	8.
Petty officers, third class.....	5.
Firemen, first class.....	3.
Firemen, second class.....	2.
Firemen, third class.....	2.
Nonrated men, first class.....	11.
Nonrated men, second class.....	10.
Nonrated men, third class.....	
Cabin stewards and cooks.....	
Wardroom stewards and cooks.....	
Steerage stewards and cooks.....	
Warrant officers, stewards, and cooks.....	
Mess attendants, first class.....	
Mess attendants, second class.....	
Mess attendants, third class.....	
Total.....	65

That is provisional and for the moment is the best we have.

CHIEF PETTY OFFICERS REQUIRED FOR UNITS OF 190,000 MEN AND 65,000

Mr. KELLEY. You remember when Captain Leigh was down your place, do you not?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. On the basis of 190,000 men, Captain Leigh estimated that you would need 7,439 chief petty officers.

Captain WILLIAMS. Seven thousand?

Mr. KELLEY. Yes, sir; on the basis of 190,000 men in the Navy this was November 1, 1919. You have 8,420 chief petty officers plus 312, or 8,732 chief petty officers, with 100,000 men in the Navy.

Captain WILLIAMS. There is a difference of opinion. We can get at it from half a dozen different points of view. In the first place we know the difference. We know that is not entirely dependent on the 65,000 and the 190,000. You see, we know there is another element which you and I have spoken of before. It is dependent, of course, on the service they are engaged in, the size of the ship, and various other elements besides the 190,000.

Mr. KELLEY. They are about the same ships?

Captain WILLIAMS. I do not care to waste any time on that. What did you say that was?

Mr. KELLEY. In 1919.

Captain WILLIAMS. In 1919, we were then struggling through a period of demobilization. The demobilization was still ripe. We had never in our lives been accustomed to handling and producing statistics, these minute personnel statistics. I will leave it to you as a final answer to the proposition. I think Captain Leigh was mistaken. Captain Leigh might turn up and say I am mistaken. I have machines we use for getting the statistics, which he did not have.

Mr. KELLEY. Is not this the explanation of it, Captain, that during the war you had to have on all of these various ships of the Navy large numbers of men in the higher ratings, and then, when the ships were discontinued, like the Overseas Transportation Service

and all that, you found yourselves with these men in the higher ratings on your hands, and instead of letting them go in proportion whenever you made a reduction you made it at the bottom; is not that the explanation?

Captain WILLIAMS. That is partly the explanation.

Mr. KELLEY. Is not that the real meat in the coconut?

Captain WILLIAMS. No, sir; that is not all of it. Like all personnel problems, there were a dozen reasons for it. Here is a memorandum on the subject—that is not what you want. When we demobilized—

Mr. KELLEY (interposing). Let me say before you finish there that if a good strong allowance is made in these upper grades, which you have evidently done here—

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You do not think that is enough?

NUMBER OF CHIEF PETTY OFFICERS ON BASIS OF 119,000 MEN.

Commander LEAHY. No, sir. This statement which Captain Williams has read is an actual complement of the vessels enumerated to be kept in commission and is based on the shore establishment which we read the other day. That is an actual count of the number of men required, as near a count as we can get.

Mr. KELLEY. Captain, do you hear what the commander is saying?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That this is the actual number of places to be filled by these men.

Captain WILLIAMS. That goes without saying. You have a table of the number we want, and the problem that I submit to you is the difference between the two.

Mr. KELLEY. I thought you admitted that the numbers in the upper grades were excessive?

Captain WILLIAMS. Which numbers are you talking about?

Mr. KELLEY. The numbers in the upper grades, that not only were they excessive, due to the fact which I indicated a while ago—

Captain WILLIAMS (interposing). We have not spoken of that; we have not touched that subject. I might or might not. What we were talking about was plan 1, to get down to 65,000 on July 1, and we said it would open the gates, you remember, and allow these men to go out and that the people who would remain would be in the upper grades and that then they would be excessive.

Mr. KELLEY. Here is what Captain Leigh said: Chief petty officers that would be required on a basis of 119,000—the other I gave was 90,000—we are getting down to 119,000. Not only that, he claims they were in the service on November 1, 1919. I think this is based on 119,000 men. I think probably the table is mistaken in that respect. There must have been more than 119,000 in the service on November 1, 1919.

Admiral COONTZ. As you will remember, Mr. Kelley, we let everybody that wanted to go leave. We did not have men enough for the ships to get away.

Captain WILLIAMS. You can not justify that. On the 19th of November they had 12,000.

Mr. KELLEY. I remember this very well. It sheds light on this table. Your desire at that time was to keep these higher men, the men

in the higher ratings, because wage conditions outside were much better than on the inside, and as a result of that you had run down in the Navy on that date to 3,000 chief petty officers, 7,000 of the first class, 7,000 of the second class, 5,000 of the third class, and so on, that there was a great shortage. Then, we increased the pay in order to correct that situation.

Captain WILLIAMS. I want to say that I do not believe much in the accuracy of those figures. Looking at them now, with the improved methods and all that sort of thing, I do not believe much in the accuracy of those figures, although those were the best available.

NUMBER OF CHIEF PETTY OFFICERS IN NAVY NOVEMBER, 1919.

Mr. KELLEY. If you knew how many men in these different ratings we had on the 1st of July, 1916, that would aid us.

Colonel ROOSEVELT. I think the captain has a memorandum of what men we had at the time Captain Leigh testified, based on that situation and count. I think that would help us to decide whether there had been a mistake made in Captain Leigh's testimony or not.

Mr. KELLEY. This table, in the first column, gives the number in the service on that date and it amounts to 119,000, which tallies pretty well with what Admiral Coontz said. The Navy ran down in the higher ratings where the skilled mechanics were lost.

Captain WILLIAMS. Here is the memorandum:

In the hearings on November 12, 1919, in connection with the pay bill of 1920, Captain Leigh submitted a table showing that there were 3,000 chief petty officers in the service; also certain requirements for various sized navies. These figures, according to Lieutenant Commander Soule, are based on estimates of a very vague character. They were so manifestly in error that a count was made as of November 15, 1919, and it was found that there were 12,668 chief petty officers in the service. We know now, after a most exhaustive study, that we require about 9,752 chief petty officers for a navy of 100,000 men.

This is as of January 5, and has no reference to what I have just said.

REASONS FOR CHIEF PETTY OFFICERS LEAVING NAVY IN 1919.

Mr. KELLEY. Does that say that there were 12,000 chief petty officers at the time Captain Leigh made this statement?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. I think Captain Leigh's statement is nearer correct.

Captain WILLIAMS. Maybe so.

Mr. KELLEY. Otherwise, there would not have been any occasion for you coming down here and getting an increase of pay. That was the basis on which it was made.

Colonel ROOSEVELT. There is a question—who made the count?

Mr. KELLEY. I know that we started in 1919 to readjust the pay because the number of skilled mechanics was not sufficient. That was in 1919 and it took us quite a little while to get it through. It was a difficult job, but we finally did get it through, and we based the whole argument—I made the argument at the time—to the House on the fact that there was a tremendous shortage of skilled mechanics. If you had had 12,000 chief petty officers at that time I would never have taken control of the bill.

Captain WILLIAMS. I have no more faith in 12,000 than I have in any other figure.

Mr. KELLEY. This figure is more apt to be correct?

Captain WILLIAMS. I am not prepared to say; I do not know. The statement that you make about the leaving of the highly trained men—the chief petty officers, mechanics, etc.—was discussed in the hearings for eight months.

Mr. KELLEY. A long time.

Captain WILLIAMS. It was not based on that figure or this figure; it was based on the most careful and long-continued study of the figures and facts. As you remember, I think that started in October, and I think the bill passed in May. It was not dependent on any one of these figures. The question of Captain Leigh's information, etc., is so complicated and all that sort of thing that I can only make this as our best estimate based on the complements of the ships that we are contemplating.

Mr. KELLEY. They had substantially the same ships.

Mr. BYRNES. I would like to know whether you count the difference between 12,000 and 3,000—whose figures we can rely on? Did you make a real count of the men after the estimate furnished by Captain Leigh?

Commander LEAHY. This figure of 12,000 was furnished to me by the statistician of the Bureau of Navigation, and this count was made in November, 1919, and it was found that there was that number of chief petty officers in the Navy.

Mr. KELLEY. If you had told us that there were 12,000 chief petty officers in 1919, you would not have had much show of getting an increase in the pay of these officers.

Captain WILLIAMS. The question of 3,000 or 12,000 chief petty officers was not the question of the moment. It was a question that was discussed in the Naval Committee from October until May—not only the chief petty officers, but all the others. The fact that they were leaving was wholly apparent to every man in the country at that time. It was not a question of the difference between these figures. At that time they were leaving just as fast as they could get out: they were perfectly crazy to get out.

SHORTAGE OF ENLISTED MEN IN 1919, DUE TO DISCHARGES.

Mr. BYRNES. If you had 12,000, before you must have had about 30,000?

Captain WILLIAMS. I should not wonder if we had. You have to take into account that the 12,000, or whatever the figure was at that time, does not represent a Navy of the size that we have now. It represented a Navy very much larger. The fact that they were going out at that time was proved by the hearings that lasted six months.

Mr. KELLEY. I understand that they were leaving.

Captain WILLIAMS. Was there any doubt in your mind that they were leaving?

Mr. KELLEY. If they had not been leaving, there would not have been any chance of your getting the increase in pay, because that was the motive.

Captain WILLIAMS. They left for the Shipping Board—the Shipping Board invited them on our own ships.

Mr. BYRNES. You must have had a much larger number of men before that time.

Admiral COONTZ. They began to go all the fall and by herculean efforts we kept enough men aboard the ships on the 5th of February to shove them away from the docks.

Mr. KELLEY. You remember that there was legislation about the men so as to facilitate their discharge?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Because they had all been through the war and everybody said—I guess the naval officers and all, and they were wanting to go—if anybody wants to go, let them go. Then the Shipping Board's opportunities, as somebody said, were made to the skilled mechanics. I dare say that Captain Leigh's figures are absolutely correct.

Admiral COONTZ. I do not know.

Mr. KELLEY. And these figures you submit are probably wrong.

Colonel ROOSEVELT. I do not believe so. I believe the figures submitted this morning are correct. I believe they were going out fast all the time, leaving all the time. I believe that 12,000 is nearer correct; I believe the other figure is a mistake.

Mr. KELLEY. If you had had 12,000, you would have had loads of officers and you would not have had any—

Colonel ROOSEVELT (interposing). I was not here at the time.

Admiral COONTZ. I went out to the Pacific on the 1st day of July, 1919, with the fleet and we took about half with us. We had begged and gotten the men to stay until we got the ships to the Pacific. We got them there. We went to the cities and received the welcome and all that until the late fall and then the men just went ashore by the hundreds.

Mr. KELLEY. That is my understanding.

Admiral COONTZ. And in December of that year I do not believe they had half their crews aboard.

Mr. KELLEY. Our memories are in perfect accord.

Admiral COONTZ. I know that we had a special conference in January to see what we could do to shove those ships away from the docks, because they would be lying there some six months.

Mr. KELLEY. And we went ahead and we promised the boys, either directly or indirectly, that even though the bill were late in passing, that we would make it retroactive?

Admiral COONTZ. Yes, sir; and that fall and spring they began to come back.

Captain WILLIAMS. Those figures are contained in the hearings, and they are repeated and verified by man after man.

NUMBER OF ENLISTED MEN IN NAVY BY RATINGS IN 1916.

Mr. KELLEY. How many men did you have in these different ratings in 1916? Have you that information?

Captain WILLIAMS. No, sir; I have not that data.

Mr. KELLEY. You may furnish that information as of July 1, 1916, or some other date in 1916.

Captain WILLIAMS. We will furnish that.

Number of enlisted men by pay grades in service June 30, 1916.

Chief petty officers.....	4, 136
Petty officers, first class.....	6, 483
Petty officers, second class.....	4, 671
Petty officers, third class.....	4, 532
Firemen, first class.....	3, 590
Firemen, second class.....	2, 960
Firemen, third class.....	3, 748
Rated men, first class.....	7, 500
Rated men, second class.....	9, 471
Rated men, third class.....	4, 376
Cabin stewards and cooks.....	416
Wardroom stewards and cooks.....	299
Stewardage stewards and cooks.....	72
Varrant officers' stewards and cooks.....	193
Mess attendants, first class.....	816
Mess attendants, second class.....	447
Mess attendants, third class.....	509
Total.....	54, 234

NUMBER OF MEN IN NAVY JULY 30, 1921, BY YEARS OF SERVICE.

Mr. KELLEY. Have you a table showing the number of men in the chief petty officer rating who have served 8, 12, 16 years, etc.?

Captain WILLIAMS. No, sir; I do not think so. I think we have the number of men in the Navy that have served that length of time. This is not what you asked for, and it is not very recent. It shows a total of 119,000 on June 30, 1921.

Mr. KELLEY. You may give that.

Captain WILLIAMS. As of June 30, 1921, the number who had served 28 years and over was 94; 24 years and less than 28 years, 13; 20 years and less than 24 years, 242; 16 years and less than 20 years, 1,481; 12 years and less than 16 years, 3,604; 8 years and less than 12 years, 5,444; 4 years and less than 8 years, 8,826; less than 4 years, 16,552; and with no previous service, 82,349. That is as of July 30, 1921.

Mr. KELLEY. That makes a total of 119,000?

Captain WILLIAMS. Yes, sir. If you want the same information for the petty officers in the service, I can furnish it.

Mr. KELLEY. Will that be much of a job?

Captain WILLIAMS. Yes, sir; quite a job.

Mr. KELLEY. This looks like a pretty top-heavy list to me.

Captain WILLIAMS. Let us determine what you are talking about—whether it is what we have or what we want.

Mr. KELLEY. I am referring to the last list you gave, making up 65,000 men.

REASONS FOR RETAINING CHIEF PETTY OFFICERS IN SERVICE.

Captain WILLIAMS. I do not think so. That is a long story, and you have heard it before. Let us take up the question of the chief petty officers: The chief petty officer has no parallel in any other military service except the Navy. He is the highest leading man that we have, and in many cases he is a very high-grade mechanic. He may be both, and sometimes is. The number of those men depends, first, on the size of the ship and upon the character of the ship upon which we are estimating; it depends, second, upon the number of ships

upon which we are estimating, but aside from and beyond that, this group of men have qualifications which, perhaps, can not be measured mathematically. If you have a very large number of very young men or inexperienced men or incompletely trained men, you must, of necessity, have more men in these higher ratings. When your number is standardized, when your training is diffused from the top down, and when you have had your plan in operation for any length of time, perhaps then these inequalities will smooth themselves out, but under the present circumstances, upon the basis of our experience, and according to the best observations we can obtain, we say that this type of ships requires so many petty officers—that is, two of this type, three of that type to run the engines, etc., and by accumulating them we get the number. Now, it takes time to make them; they can not be easily replaced when the time comes, and they have a value greater than their mathematical value.

Mr. KELLEY. I agree with you that if we have a small Navy we want to man it with good men, eliminating the boys as far as may be desirable, in order to bring about that condition. There is no dispute between us about that: but I say that possibly, even so, these percentages run pretty high in the upper grades.

Captain WILLIAMS. No, sir. I am very sure that Mr. Pugh can find in the hearings for years past statements showing that similar percentages have been carried in all the navies of the world. I am quite sure that that information has been given for Great Britain, France, Japan, and for all the foreign services. It is customary to compare them with the men in similar ratings in some other military branch, but there are none similar. They are not at all like anything I know of outside of the naval service.

Mr. KELLEY. Mr. Reed, you heard those figures that the captain read off as the number desired on the basis of 65,000 men. From your recollection, would they hold pretty well proportionately with the number that you figured for the various grades when you made up the pay table last year?

Mr. REED. Do you mean for the appropriation for 1922?

Mr. KELLEY. Yes.

Mr. REED. This distribution is higher in the upper grades.

NUMBER OF MEN ENTITLED TO RESERVE-LAW PRIVILEGES.

Mr. KELLEY. That is the way it struck me. It would help us if you would furnish us the number of men in each of the four higher ratings—that is, above the rating of firemen—with the length of service of those men. The statement should show the number that have served 4 years, the number that have served 8 years, the number that have served 12 years, and the number that have served 16 years, etc. We would like to have that statement covering the length of service of the four highest grades.

Captain WILLIAMS. You want to know what will be our best estimate of their length of service?

Mr. KELLEY. Yes.

Captain WILLIAMS. For instance, if you were estimating on 6,663 chief petty officers, you would want to have our best estimate of their length of service?

Mr. KELLEY. Yes. It will have a bearing on the question of whether they will be likely to go into the reserves.

Captain WILLIAMS. Yes, sir. We have 8,400 permanent and 3,112 temporary.

Mr. KELLEY. After a man has served 16 years, he then goes into the reserves at what pay?

Captain WILLIAMS. At one-third pay.

Mr. KELLEY. There is quite an attraction there. He gets an annuity of one-third of his pay?

Captain WILLIAMS. We have been discouraging that as far as we could.

Mr. KELLEY. If you had an excess at all, the men who had served longer than 16 years might be glad to go out, if you would allow them and did not need them.

Captain WILLIAMS. Our reserve legislation is now pending.

Mr. BYRNES. You say you have been discouraging them from going into the reserves. Why do you do that?

Captain WILLIAMS. For many reasons. We want these men, in the first place, and want to keep them. In the second place, the reserve legislation is pending, and we do not want to load up that reserve list with any more of these people than we can help, or until the reserve business is settled. When you come to talk about the reserves you have a lot of new elements to consider.

Mr. KELLEY. If there were a certain number going out, who had served 16 years, they would have certain rights of pay and other privileges, and, of course, nobody wants to deprive them of any of those rights. We want to know about how many would be entitled to them.

Captain WILLIAMS. I do not think you will find the number very large.

Colonel ROOSEVELT. What you want is the number who would be entitled to certain privileges under the reserve law at this time in the Navy?

Mr. KELLEY. Yes; in these higher grades. It would not appeal to anybody else.

Colonel ROOSEVELT. Have you that information?

Captain WILLIAMS. I will supply that for the committee.

REDUCTION OF NAVY BY ALLOWING NORMAL DECREASE.

Mr. KELLEY. Captain, you said a while ago that there were two ways of effecting this reduction, in case Congress decided to make it. What is the other way?

Captain WILLIAMS. I think, taking all things into consideration, that I would much prefer the method of which we have been speaking. The other method is one that is not new to us. It consists in allowing the normal decrease to take place, and, in fact, encouraging it, from the number we have now to the number it will reach on July 1, 1923, thereby establishing an average of 65,000 men. It, perhaps, would bring about a delay in recruiting and, perhaps, a delay in the matter of training. By training under those circumstances, I mean trade schools also. We might be able to delay recruiting under those circumstances until November or December of this year, and we might be able to get along without bringing in new men and without

training. Now we have got 95,000, roughly speaking, and on July 1, 1923, we would have to cut down away below 65,000 in order to make an average of 65,000 for the year. It is not an easy thing to make a number of men fit the appropriation. The variables there are immense.

The appropriation covers the pay of different grades; it covers the pay of a number of men which, as I have explained, is not always accurately available. We might be 1,000 men out in our count, and, consequently, in handling that many we have got to allow a large factor of safety. Our experience in 1920 and 1921, or in those two fiscal years, after the demobilization, showed that we came down, first, to an average of 120,000 men, and next to maintaining an average of 112,000 men, I think it was, and now we are under contract to maintain an average of about 90,000 plus. There is a fluctuation due to discharges. If the appropriation is exceeded, we discharge men, but if the appropriation is in excess, let us recruit men. That is extremely bad from one point of view. We have certain figures now, or those figures on first enlistments that I read to you a few moments ago. In my opinion, after considering all of the circumstances connected with the fluctuations in personnel, that is one of the results. To give the reasons would lead us far afield, but those fluctuations in personnel are, perhaps, as bad if not worse than the cuts.

MR. KELLEY. Have you canvassed the situation with the Secretary of the Navy to determine which of the two methods should be pursued?

Captain WILLIAMS. No, sir; I have not.

TRANSPORTATION AND RECRUITING.

MR. KELLEY. Of course, you will have to determine that before we take up the question of transportation and recruiting.

Captain WILLIAMS. You have got to have a variable there.

MR. KELLEY. But you would have to determine that.

Captain WILLIAMS. I have been watching the appropriation, transportation, and recruiting for the past four years. It is the twin sister of all this business. You may not believe me, but I know of no appropriation where the estimates have come so close to the expenditures. I know of none that I have had anything to do with that came closer.

MR. KELLEY. I think you started out with about \$12,000,000.

Captain WILLIAMS. And it will amount to that before you get through with the deficiencies.

VARIATION IN PERSONNEL TO BE CAUSED BY REDUCTION.

Colonel ROOSEVELT. With your permission, I want to put in a statement in explanation of a phase of the matter on which Captain Williams has not yet spoken, and which is one of the most important factors in this situation: Should plan 2 be adopted, you would run down from 50,000 men at sea to about 30,000 men at sea in the last half of the year.

MR. KELLEY. That would depend on where you started.

Colonel ROOSEVELT. You could not do otherwise.

Mr. KELLEY. Suppose you discharged a little bit between now and the 1st of July, and cut the number down to 70,000 or 75,000. It could depend upon what you had between now and the 1st of July.

Colonel ROOSEVELT. I am cutting down to 65,000, which would be about the same thing; but the difference between plan 1 and plan 2 is this, that under the first plan you man your Navy with a constant force all the year along, and you know what you have got, whereas under the second plan you have slightly more men than Congress provided for, or slightly more than you considered was proper for the Navy, during the first six months and less during the last six months, so that you must cut down to a margin of great unsafety during the last six months.

Mr. FRENCH. Would not another difficulty arise under plan 2? Under that plan you would lose on ships that might be in remote places—at the Philippines or in the Mediterranean—on the question of discharges, because the question of replacements would be a question of reserves, and replacements could not be made on those ships if they might be made on ships close in.

Colonel ROOSEVELT. Unquestionably. If it were a business, the constant would be fixed; but we have not our constants. We have been shifting year after year, and have not got down to a constant state, and the result is that it is up and down and we are not able to figure on it.

Mr. KELLEY. It might not be quite exact following either plan.

JUSTIFICATION FOR RUNNING TRAINING STATIONS.

Mr. BYRNES. Captain, how do you get that 49 per cent of first enlistments? Did I understand you to say there were 49 per cent of first enlistments during the past year?

Captain WILLIAMS. No, sir.

Mr. BYRNES. What is that figure?

Captain WILLIAMS. This is a figure which deals with the state of affairs as it is. During the fiscal year 1921 there were in the Navy an average of 54,517 men on their first enlistments—that is to say, 49 per cent of the average number of men in 1921 were serving in their first enlistments.

Mr. BYRNES. Then, why were you arguing that it would necessitate the running of training stations or operating the training stations for recruits?

Captain WILLIAMS. That was not the argument.

Mr. BYRNES. Then, I misunderstood you.

Captain WILLIAMS. May I go over that again?

Mr. BYRNES. If that was not the argument, I misunderstood you.

Captain WILLIAMS. The argument for running the training stations is the number of discharges.

Mr. BYRNES. What I am driving at is this: If you have men serving their first enlistments, and they reenlist, it will not be necessary to train them.

Captain WILLIAMS. You have got the wrong idea.

Mr. BYRNES. What argument were you making to justify the operation of the training stations?

Captain WILLIAMS. The number of men who will actually go out this year, whether serving their first enlistment, second enlistment, third enlistment, or any other enlistment. It is the number of men who will go out.

Mr. BYRNES. When the term of a man serving his first enlistment expires and he reenlists, you do not have to send him to a training station?

Captain WILLIAMS. No, sir.

Mr. BYRNES. Therefore, when you say it depends upon the number of men going out, I do not see that the necessity for the training station necessarily follows. It does not necessarily follow that you would send those men to training stations.

Captain WILLIAMS. We have allowed, upon the basis of our experience in the past, for 50 per cent of reenlistments, leaving 50 per cent of the vacancies to look out for. If you have 40,000 vacancies and 20,000 reenlistments, you have 20,000 more vacancies to fill.

Mr. BYRNES. It is based upon your starting the next fiscal year with 65,000 men?

Captain WILLIAMS. It is based upon our experience in the past.

Mr. KELLEY. But it disregards the reenlistment of other people except those who immediately reenlist. There are boys all over the country who have had service in the Navy and who will be glad to reenlist. You can pick them out anywhere, and they will not require training. They are now hanging around waiting to see what you will do about the pay. They do not want to enlist for four years on the old pay.

Captain WILLIAMS. There is a great deal in what you say, but according to my best judgment, I do not believe that that factor will ever counterbalance that estimate of six or seven thousand men per month for training.

SATURDAY, MARCH 11, 1922.

INCREASE OF THE NAVY.

STATEMENTS OF REAR ADMIRAL DAVID W. TAYLOR, CHIEF BUREAU OF CONSTRUCTION AND REPAIR; REAR ADMIRAL CHARLES B. McVAY, JR., CHIEF BUREAU OF ORDNANCE; AND REAR ADMIRAL JOHN K. ROBINSON, CHIEF BUREAU OF ENGINEERING.

STATUS OF CONSTRUCTION OF VESSELS TO BE DISCONTINUED UNDER TREATY.

Mr. KELLEY. We have with us this morning Admiral Taylor, Chief of the Bureau of Construction and Repair, and Admiral McVay, Chief of the Bureau of Ordnance, and their assistants. We will hear Admiral Taylor first.

Admiral, we want to make some inquiries this morning about the state of construction on vessels that are to be discontinued under the treaty, and also on those that are to be completed. How many battle ships have you now on the ways or now under construction?

Admiral TAYLOR. We have now under construction 15.

Mr. KELLEY. Does that number include cruisers?

Admiral TAYLOR. Yes, sir; it includes the capital ships. It includes six battle cruisers, six large battleships, and three smaller battleships.

Mr. KELLEY. Of the battleships that are now building, how many will be finished under the treaty?

Admiral TAYLOR. Two of the *Maryland* class, namely, the *Colorado* and either the *West Virginia* or the *Washington*.

Mr. KELLEY. What is the percentage of completion of the *Colorado*?

Admiral TAYLOR. The *Colorado* is approximately 90 per cent completed in the hull and somewhat less in machinery.

Mr. KELLEY. The *Colorado* is expected to be finished within the next fiscal year, or during the present fiscal year?

Admiral TAYLOR. Within the next fiscal year, depending upon the money.

Mr. KELLEY. How much more money will it take to finish the *Colorado*? I am speaking now of your part of it.

Admiral TAYLOR. Yes, sir; I understand that. After the 1st of July next we estimate that \$2,000,000 will be required to finish the *Colorado*.

Mr. KELLEY. Admiral McVay, how much will it take for your bureau to finish it after the 1st of July?

Admiral McVAY. About \$1,500,000.

Mr. KELLEY. Is there anybody that can speak for engineering?

Admiral TAYLOR. The \$2,000,000 I gave includes construction and machinery.

Admiral McVAY. In that connection, I take it that you mean how much more money will be needed?

Mr. KELLEY. I want to know how much you will have to spend on it after the 1st of July. The amount you gave is right?

Admiral McVAY. Yes, sir.

Mr. KELLEY. That makes \$3,500,000 as the amount necessary to finish the *Colorado*. Now, either the *Washington* or the *West Virginia* will be finished?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. They are not far apart, I suppose?

Admiral TAYLOR. We have a board sitting on that. Whichever one is completed, there will be required about \$3,750,000 after the 1st of July for engineering and construction.

Mr. KELLEY. And how much will be required for ordnance?

Admiral McVAY. \$2,500,000.

Mr. KELLEY. That means \$6,250,000 for either the *West Virginia* or the *Washington*. About what is the percentage of completion of either or both of those ships?

Admiral TAYLOR. Roughly, in the neighborhood of 75 per cent.

Mr. KELLEY. Would it be your idea to wholly complete either the *Washington* or the *West Virginia* next year?

Admiral TAYLOR. It would be very desirable, because this slow progress is very expensive. We have got to the condition where the private shipyards have virtually nothing except Government work, and the price of material and labor is apparently not going down much, and the overhead is going on all the time.

Mr. KELLEY. It could be completed within the year without crowding the work very much?

Admiral TAYLOR. Very readily; yes, sir. Unless we complete them, we will have to slow down the work very much.

CONVERSION OF VESSELS TO AIRCRAFT CARRIERS.

Mr. KELLEY. Vessels of the battle cruiser type are all to be discontinued unless there is some legislative provision to convert them into aircraft carriers?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Have you developed the situation far enough so that you can tell us this morning about the situation in reference to the conversion of two of them—that is, what it would cost and how long it would take?

Admiral TAYLOR. Mechanically it is quite possible to convert them. The situation is that those at present most advanced have been built up on the ways up to the water line, and what we would do in converting them would be to utilize everything below the water line. What we would do would be to throw away everything above the water line, including the turrets for the guns and the structure above, building a new structure for the aircraft carrier.

Mr. KELLEY. So that, so far as the work of construction and the material that has gone into the ships are concerned, there would not be any great loss involved in the conversion of them?

Admiral TAYLOR. Comparatively little. We have actually spent on the ships in the neighborhood of \$6,000,000 each, in round figures, and if it is necessary to scrap them, we figure that we will need about \$5,500,000 more for each, or \$6,000,000 for each, making an ultimate expenditure in the appropriation for construction and machinery on those ships of about \$11,500,000. As to the cost in the way of new expenditures for converting them into aircraft carriers, we figure that can be done within the limit of the cost of the battle cruisers or \$23,000,000. Therefore, converting them into aircraft carriers would require approximately \$11,500,000 of new money over what has been spent and over what would be spent if they were scrapped.

Mr. KELLEY. What would have to be spent in scrapping them would come about through settlements and cancellations, and on account of the material that would have to be discarded?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Leaving out of the discussion entirely what it takes to settle up, in order that it might be handled as a separate proposition, how much will it take to finish the two battle cruisers further advanced, or the two that you have in mind to finish as airplane carriers?

Admiral TAYLOR. It would be in the neighborhood of \$17,000,000 apiece. That is additional to what has already been spent. Something, of course, will depend upon the date upon which they are finished.

Mr. KELLEY. That \$17,000,000 is the difference between the limit of cost of the battle cruisers and what has been spent upon them?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Now, as to the ordnance end of it. Does your statement include engineering also?

Admiral TAYLOR. Yes, sir; I have those statements together.

Admiral McVay. Eleven million dollars would be required for finance.

Mr. KELLEY. Apiece?

Admiral McVay. No, sir; for the two. \$6,400,000 would be required for armor and armament and \$4,600,000 for the item of ammunition.

Mr. KELLEY. Making \$11,000,000 altogether.

Admiral McVay. Yes, sir.

Mr. KELLEY. Suppose you leave out for the moment the question ammunition. You would require in finishing the ships how much?

Admiral McVay. \$6,400,000.

Mr. KELLEY. For the two?

Admiral McVay. Yes, sir.

Mr. KELLEY. Then, that makes for the actual completion of the two ships as airplane carriers the sum of \$40,400,000.

Admiral TAYLOR. I was going to say that that figure that I gave you is not the figure after the 1st of July. If we were authorized to proceed promptly, we would spend between now and the 1st of July in the neighborhood of \$3,000,000.

Mr. KELLEY. On each one?

Admiral TAYLOR. On the two. We are in a rather uncertain state, because we do not know whether they will be converted, and we do not know whether we will have a separate appropriation for scrapping them.

Mr. KELLEY. What part of this would you expect to spend during the coming year, or after July 1, and how rapidly would this work forward?

Admiral TAYLOR. If the work were carried on at a normal rate we figure that the minimum amount would be \$7,000,000 on each vessel for construction and machinery.

Mr. KELLEY. Does the ordnance work need to go forward at the same time this coming year?

Admiral McVay. It does; yes, sir; but, assuming that the ships will be scrapped, we will require no money.

Mr. KELLEY. Seven million dollars each would be expended for construction and machinery. How much, Admiral McVay, would be expended next year for ordnance?

Admiral McVay. Well, we should have about \$7,000,000. That two-thirds of it.

Mr. KELLEY. You gave the figure of \$6,400,000.

Admiral McVay. It would be about \$4,000,000 for armor and armament.

Mr. KELLEY. Would you have to have \$2,000,000 for each ship for finance this coming year?

Admiral McVay. Yes, sir.

Mr. KELLEY. Of course, it all depends on when these are authorized as to what you can spend during the rest of this year?

Admiral McVay. It does; yes, sir.

Mr. KELLEY. In other words, you can not do anything until Congress authorizes the reconstruction or conversion of these cruisers to airplane carriers?

Admiral McVay. No, sir; and, not only that, but so long as the work is suspended it is costing us about \$10,000 per day for sus-

pension charges. The stoppage of work saves about \$80,000 per day but the suspension charges, or holding it in readiness to be continued, will run about \$10,000 per day.

Mr. BYRNES. How do you estimate that?

Admiral McVAY. When it seemed likely that the scrapping would go through, I invited the larger contractors to a conference and asked them to please outline their charges. There is nothing settled, but they have outlined the charges, and from that I have figured what it would cost.

Mr. BYRNES. \$10,000 per day?

Admiral McVAY. Yes, sir.

Mr. KELLEY. These figures make up \$3,500,000 for the *Colorado* and \$6,250,000 for the other battleship, either the *Washington* or the *West Virginia*, and \$18,000,000 for the two airplane carriers for next year, in case Congress makes the authorization and the other ships are continued?

SCOUT CRUISERS.

STATUS OF CONSTRUCTION AND COST TO COMPLETE.

Admiral TAYLOR. And there are 10 scout cruisers.

Mr. KELLEY. Give us the figure for the completion of the 10 scout cruisers, and give them by name. Perhaps you could put in a table at this point.

Admiral TAYLOR. They vary in state of completion. The *Omaha* is 95 per cent completed. This table shows all the vessels under construction, including those to be scrapped and those not to be scrapped.

Mr. KELLEY. I think it would be a good thing to put this table into the hearing.

Admiral TAYLOR. I can put the whole thing in covering all vessel building.

(The table referred to is as follows:)

Vessels under construction, United States Navy, February 28, 1922.

Type No.	Name.	Contractor.	Per cent completed
BATTLESHIPS (BB).			
45	Colorado.....	New York Shipbuilding Corporation.....	
47	Washington.....	do.....	
48	West Virginia.....	Newport News Shipbuilding & Dry Dock Co....	
49	South Dakota.....	New York Navy Yard.....	
50	Indiana.....	do.....	
51	Montana.....	Mare Island Navy Yard.....	
52	North Carolina.....	Norfolk Navy Yard.....	
53	Iowa.....	Newport News Shipbuilding & Dry Dock Co....	
54	Massachusetts.....	Bethlehem Shipbuilding Corporation (Fore River).....	
BATTLE CRUISERS (BC).			
1	Lexington.....	Bethlehem Shipbuilding Corporation (Fore River).....	
2	Constellation.....	Newport News Shipbuilding & Dry Dock Co....	
3	Saratoga.....	New York Shipbuilding Corporation.....	
4	Ranger.....	Newport News Shipbuilding & Dry Dock Co....	
5	Constitution.....	Philadelphia Navy Yard.....	
6	United States.....	do.....	

der construction, United States Navy, February 28, 1922—Continued.

Name.	Contractor.	Per cent of completion Mar. 1, 1922.
CRUISERS (LIGHT CRUISERS CL).		
a.....	Todd Dry Dock and Construction Corporation.	94.7
ukee.....	do.	87
nati.....	do.	81.8
th.....	Bethlehem Shipbuilding Corporation (Fore River).	46.6
it.....	do.	68.1
iond.....	Wm. Cramp & Sons Co.	80
rd.....	do.	77
on.....	do.	46
thead.....	do.	33
his.....	do.	26
DESTROYER AUXILIARIES.		
r ship No. 1, Medusa (AR1).....	Puget Sound Navy Yard.	69.8
oyer tender No. 3, Dobbin (AD3).....	Philadelphia Navy Yard.	67.8
oyer tender No. 4, Whitney 4).....	Boston Navy Yard.	42.1
arine tender No. 3, Holland 3).....	Puget Sound Navy Yard.	5.5
PATROL VESSELS.		
at No. 22, Tulsa (PG22).....	Charleston Navy Yard.	60
SUBMARINES.		
.....	Portsmouth (N. H.) Navy Yard.	94.8
.....	do.	92.8
.....	do.	91.6
.....	do.	89.5
.....	Electric Boat Co. (Quincy).....	97
.....	do.	96.5
.....	do.	98.5
.....	do.	94.9
.....	do.	95.8
.....	do.	94
.....	do.	93
.....	do.	93.5
.....	do.	91.9
.....	do.	90
.....	do.	90.9
.....	do.	89
.....	do.	99
.....	Electric Boat Co. (San Francisco).....	97.7
.....	do.	96.6
.....	do.	99.2
.....	do.	95.6
.....	do.	93.4
.....	do.	92.2
.....	do.	91.5
.....	do.	85.9
.....	do.	83
.....	do.	79.8
.....	do.	82.9
.....	Electric Boat Co. (Quincy).....	70
.....	do.	71.7
.....	do.	68.4
.....	do.	69.1
.....	do.	67.2
.....	do.	66.9
.....	Lake Torpedo Boat Co. (Bridgeport).....	98.3
.....	do.	99.3
.....	do.	97.3
.....	do.	94.5
FLEET SUBMARINES.		
.....	Portsmouth (N. H.) Navy Yard.	15.8
.....	do.	10
.....	do.	9

Admiral TAYLOR. Of course, the statement as to the percentage of completion applies to the hull only, but the machinery is somewhere near the same. The ordnance, as a rule, is ahead of the hull and machinery.

Mr. KELLEY. How much are you asking for the continuation of these scout cruisers?

Admiral TAYLOR. I want to give you the facts. Practically all of these scout cruisers could be finished during next year. It will cost to finish them after the 1st of July, \$23,000,000, in round figures.

Mr. KELLEY. You think they could be completed next year?

Admiral TAYLOR. Yes, sir. The progress is such that they could readily be completed next year. You will notice that there is only one that is not over one-third completed, that being the *Memphis*, which is 26 per cent completed. It is 40 per cent completed if you include the material in the yard. The reason they are no further advanced is because they were slowed up this year. The contractors are very anxious to go on with them, and have a lot of machinery waiting around to go into the ships as soon as the ships are ready for it.

Mr. KELLEY. Operations figures on only three going in this coming year.

Admiral TAYLOR. Do they not figure on three during the current year?

Mr. KELLEY. No; next year.

Admiral TAYLOR. They figure that the work will be slowed down. The work is actually suspended at the present time on the *Omaha* on account of the fact that she has reached her limit of cost.

Mr. KELLEY. Will the three most nearly finished be finished by the 1st of July?

Admiral TAYLOR. The *Omaha* and the two Cramps ships will be finished by the 1st of July, unless they reach their limits of cost and Congress does not authorize an increase. We suspended work on the *Omaha* because the *Omaha* reached her limit of cost and we will suspend work on the others as they reach that point unless we get some further authorization.

Mr. KELLEY. If that barrier were removed——

Admiral TAYLOR (interposing). It is very expensive to suspend them.

Mr. BYRNES. What is it costing?

Admiral TAYLOR. It is rather difficult to specify, but we have had to take all the men off and do nothing but preservation work. But for that the *Omaha* would have been on trial in May. We stopped work in January or early February.

Mr. KELLEY. If that barrier of the limit of cost were removed would you expect to have the *Omaha*, the *Milwaukee*, and the *Cincinnati* finished this year?

Admiral TAYLOR. This year; yes, sir.

Mr. KELLEY. In this \$23,000,000 that you have specified for finishing the scout cruisers, do you include what you might expect from now until the 1st of July?

Admiral TAYLOR. No, sir; that only includes new money after the 1st of July. The total cost of those 10 vessels will be about

\$1,000,000, of which we have spent something over \$50,000,000, and money is scheduled for them under the allotment going on which will make the amount spent after the 1st of July \$23,000,000.

Mr. KELLEY. Let us take the first three, the Omaha, the Milwaukee, and the Cincinnati: How much do you think you will need for those three ships next year?

Admiral TAYLOR. I have figured out the total, but I have not the figures for the individual ships.

Mr. KELLEY. How much would it take to finish those three ships? you could go right ahead with them?

Admiral TAYLOR. About \$4,000,000, from the present status.

Mr. KELLEY. If you do get the limit of cost raised, you will need \$4,000,000 for those three ships after the 1st of July for construction and machinery?

Admiral TAYLOR. Yes, sir. Unless the limit is raised before.

Admiral McVAY. For ordnance we would require \$1,600,000.

Mr. KELLEY. Does that include ammunition?

Admiral McVAY. No, sir.

Mr. KELLEY. What is the status of the next four that seem to be fairly along?

Admiral TAYLOR. The vessels which are furthest advanced of the next four are the two first building by Cramps, the *Richmond* and *Concord*; they are further along than the two building at Fore River.

Mr. KELLEY. They are going forward now?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Would you expect to finish those four, under ordinary circumstances, next year?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. And what would they require?

Admiral TAYLOR. I have not that separated ship by ship, so I would like to check that figure in the record, but it would be approximately in the neighborhood of \$8,000,000 next year.

Mr. KELLEY. For the four?

Admiral TAYLOR. For those four. Those four should be \$7,000,000, instead of \$8,000,000.

Admiral McVAY. The armament would cost \$2,000,000.

Mr. KELLEY. Then, to finish those four would take an even \$9,000,000?

Admiral McVAY. Yes, sir.

Mr. KELLEY. The last three probably would not be finished in the year?

Admiral TAYLOR. No, sir; they could be finished, but at the rate we have been carrying on the work they will not be finished.

Mr. KELLEY. How much would you need to carry those on moderately?

Admiral TAYLOR. About \$6,000,000 would carry them on at a slow rate, sir. That would mean that during the year we would do one-quarter, roughly, of the total cost—the total cost being in the neighborhood of \$24,000,000, and \$6,000,000 would do about one-quarter of the work.

ORDNANCE.

Mr. KELLEY. How much for the ordnance?

Admiral McVAY. \$900,000.

Mr. KELLEY. What is the total for all the ordnance on all of these ships to finish them?

Admiral McVAY. \$6,200,000.

Mr. KELLEY. Then you intend to finish your part of these ships entirely next year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Would it be necessary to do that?

Admiral McVAY. We always have to be a little ahead of the other bureaus, because as the work goes along under Construction the contractors call for certain material for installation, and if it is not ready there is a claim made; so we always try to work a little ahead of the other bureaus.

Mr. KELLEY. How are you going to handle the material you have on hand from the scrapping of ships if you use it on these ships?

Admiral TAYLOR. As regards scouts, there will be comparatively little of the material from scrapping which can be used, because the vessels scrapped are of different types. For instance, we could not use the plates, because each plate and shape is ordered for a particular part of the ship—that is, the plates and shapes to go in the big ships—and will not fit elsewhere.

Mr. KELLEY. That would not be so true of the armor.

Admiral McVAY. On the scouts, of course, there is no armor, but it is not true of the armament; no, sir.

Mr. KELLEY. If there were guns intended for some other use, they could be put on these ships without loss.

Admiral McVAY. Well, we have the guns; we have them now.

Mr. BYRNES. You already have these guns?

Admiral McVAY. Yes, sir.

Mr. KELLEY. For what purpose will you mostly use this \$6,200,000?

Admiral McVAY. It is for these new mounts and the fire control.

LIMIT OF COST.

Mr. KELLEY. Is there a limit of cost as to your part of these ships?

Admiral McVAY. Only that covered by the hearings before the committee, in which we have specified the amount of money from year to year to continue the work.

Mr. KELLEY. I say, is there any limit of cost fixed by law?

Admiral McVAY. No, sir.

Mr. KELLEY. You can spend as much for ordnance as you can get Congress to appropriate money for?

Admiral McVAY. Yes; except that we always specify the amount.

Mr. KELLEY. But Admiral Taylor's bureau is limited by law?

Admiral McVAY. Yes, sir.

Mr. KELLEY. So you can go ahead and change these mounts and change these plans for ordnance all you please, irrespective of what it will cost?

Admiral McVAY. Yes, sir; but, of course, we never do it without explaining to the committees what we are doing.

GUNS, MOUNTS, AND FIRE CONTROL.

Mr. KELLEY. I understood you to say that the \$6,200,000 you are asking for next year is for the new features on the ships.

miral McVAY. And completing the present features.

. KELLEY. You said you had the guns finished, and what else is but the mounts?

miral McVAY. Well, there are the mounts——

. KELLEY (interposing). And the mounts cost \$2,300,000?

miral McVAY. That is for these special mounts.

. KELLEY. How much for the other mounts?

miral McVAY. And the other mounts cost \$152,000 apiece.

. KELLEY. How many of them are there?

miral McVAY. There are 10 ships, so that it will be something 1,520,000. The fire-control costs \$292,000 per ship.

. KELLEY. And there are 10 of those?

miral McVAY: Yes, sir.

. KELLEY. Will not all of that be done before the 1st of July or any of your expenditure already been made?

miral McVAY. Yes, sir; there has been a proportion of it.

. KELLEY. There is no question about the guns, and you will have 153-caliber guns to spare?

miral McVAY. No; they are pretty nearly finished, but I can tell you the number finished.

. KELLEY. You must have had a vast number of the 6-inch 53-caliber guns that you were making for your battleships, so that you have lots of guns, of course?

miral McVAY. No.

. KELLEY. And have you not the gun mounts, too?

miral McVAY. No, sir.

. KELLEY. How many 6-inch guns will there be on the battleships?

miral McVAY. There are 16 on each of four ships. I will have later in the record the number finished, because from this record appears that for all the ships the guns are under manufacture.

. KELLEY. You were building a large number of battleships and cruisers?

miral McVAY. Yes, sir.

. KELLEY. On some of them there were sixteen 6-inch 53-caliber guns?

miral McVAY. Yes, sir.

. KELLEY. And the 6-inch 52-caliber gun is the gun you are going to put on these cruisers?

miral McVAY. Yes, sir.

. KELLEY. Have you not plenty of guns to put on the cruisers already finished, including the mounts?

miral McVAY. No.

. KELLEY. What has become of all the guns you were making for the battleships and which you will not need to mount now?

miral McVAY. I can not give you, offhand, the number completed, but I can get it and enter it in the record.

. KELLEY. You ought to know or somebody around your place ought to know whether or not you have not finished large numbers of 6-inch 53-caliber guns for some of the battleships.

miral McVAY. No; we have not. I can tell you that they are already under manufacture for all of these ships. I know that all of the 6-inch guns are completed, but how many I can not say.

Mr. KELLEY. How about the mounts? This is so unsatisfactory that we can not do anything, and you will have to prepare a list of ships that are canceled, with the armament that is under process of manufacture or whether it is manufactured or not, and give us the full condition of the armament on every ship that is to be scrapped.

Admiral McVAY. Here it is; I am reading it off to you, but it is under manufacture right now.

Mr. KELLEY. You say there are a few here and a few there, but we can not get any head or tail out of that.

Admiral McVAY. I have a statement here showing that the guns are under manufacture.

Mr. KELLEY. How far are they manufactured?

Admiral McVAY. That is what I can not tell.

Mr. KELLEY. Then it is of no use to us. We want to know in dollars and cents how much it will take to finish this job, and we can not know unless we know exactly how far advanced each one of these pieces of armament is on all the ships to be scrapped and then to be finished.

Mr. OLIVER. Have you guns of this type on any of the old ships?

Admiral McVAY. No, sir.

Mr. OLIVER. You never had that type of gun?

Admiral McVAY. No, sir.

Mr. KELLEY. If you have guns intended to be put on the battleships that are finished of this very same type, of course, there is no use in finishing these.

Admiral McVAY. That is the reason I have to take up the details, because when we make guns we do not make guns for a particular ship, but we make guns for the total number of ships, and as ships come along we put the guns on them.

Mr. KELLEY. The 6-inch 53 caliber gun is the 6-inch 53 caliber gun, mount and all?

Admiral McVAY. Yes, sir; we have to make so many, and as the ships become ready for them they are sent there.

Mr. KELLEY. You do not know whether you will need \$6,200,000 or not?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Because you do not know in what condition your guns are or your mounts are?

Admiral McVAY. Yes, sir; that data is figured out as a total without the details, without going into the details for the different ships, but I can get that and put it in. I simply do not happen to have it here.

Mr. BYRNES. You mean you have figured it out by details but you have not the details here with you?

Admiral McVAY. That is it; yes, sir. You understand, do you not, that we were carrying on these guns under manufacture for all the ships?

Mr. KELLEY. I do.

Admiral McVAY. And as they were ready they were sent to the ships that needed them?

Mr. KELLEY. I understand that very well.

Admiral McVAY. And this \$6,200,000 is needed for the completion of all the guns, 6-inch guns and mounts, but only those for the ships

it are not to be scrapped, and I will have to get the details of that.

Mr. KELLEY. You said the mounts would cost \$2,600,000, but you did not know how much you had already expended on the mounts.

Admiral McVAY. Not in detail, no, sir; but I can get it without any difficulty.

Mr. KELLEY. The figures you have given here, you say, will be the true cost of the guns and the mounts as well as the fire control, so it would look as though you had not spent anything on guns, mounts, fire control up to this time, which is not the fact, of course.

Admiral McVAY. No.

Mr. KELLEY. The \$6,200,000 is pretty nearly the total amount you had for those three purposes, according to the figures you gave?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You do not know, of that \$6,200,000, how much you have already spent, so you see we are not any nearer the goal than we were when we started.

Admiral McVAY. Well, I will put that in.

Mr. KELLEY. Obviously, the \$6,200,000 you said you would need by the 1st of July is not a correct figure.

Admiral McVAY. Yes, it is; but the only thing is that I am not able at the present time to put the details in.

Mr. KELLEY. I wish you would prepare a list, properly classified, showing every gun and mount under manufacture, on hand and not installed, including guns and mounts on vessels to be scrapped.

Admiral McVAY. Yes, sir. I will furnish this information to the committee.

USE OF MATERIALS ON HAND.

Mr. KELLEY. I understood you to say, Admiral Taylor, that as far as engineering and construction are concerned there is very little material on hand, which was purchased for the ships to be scrapped, that it can be used on these ships.

Admiral TAYLOR. Comparatively little on the scouts. We would be able to use such a thing as a ventilating fan, for instance, a small-sized ventilating fan, but the larger ships as a rule have the larger ones for the system. We could use a certain amount of sheet metal which is ordered for making pipes and things of that kind, but that is not a very large factor. We would expect to use as much of that as possible, but it would not be a very large factor. You must also remember that we have on hand for these scouts the major portion of the materials. I think as regards machinery comparatively little would be used. The pumps, for instance, and things of that kind, would not be adapted to a different engine room, because they are specially designed for the purpose.

USE OF AMMUNITION.

Mr. KELLEY. Admiral McVay, that would not be true of your part of the ship at all? The ammunition for the 6-inch 53 caliber guns that you have for these ships could be used on the other ships just as well?

Admiral McVAY. We have that; yes, sir.

Mr. KELLEY. So you would not need to include anything for that? Admiral McVAY. We have not all the 6-inch .53-caliber ammunition.

Mr. KELLEY. Have you not made any?

Admiral McVAY. No, sir; not all.

Mr. KELLEY. I wish you would prepare a statement and send it to us, showing exactly the state of your manufacture of ammunition.

Admiral McVAY. Yes, sir.

Mr. KELLEY. For all the ships that are under construction, whether they are to be scrapped or not.

Admiral McVAY. I have that here just for the capital ships, but do not have it for the others.

Mr. KELLEY. You have a lot of 6-inch .53-caliber guns on your capital ships. Have you not made any ammunition for them?

Admiral McVAY. No, sir; there is none of it ordered.

Mr. KELLEY. That is rather unusual, is it not?

Admiral McVAY. It is due to the design of the projectile.

Mr. KELLEY. What ammunition have you bought for those ships?

Admiral McVAY. We have the major caliber and we have the 5-inch ammunition. All of this is for the battle cruisers. We have the major caliber, and that is all.

Mr. KELLEY. What 5-inch guns are you talking about?

Admiral McVAY. Antiaircraft guns.

Mr. KELLEY. Do you have ammunition for them?

Admiral McVAY. No, sir.

Mr. KELLEY. What of the smaller caliber ammunition have you got?

Admiral McVAY. We have not ordered any of it.

Mr. KELLEY. You have the 5-inch and 6-inch, have you not?

Admiral McVAY. No, sir; not for these ships.

Mr. KELLEY. Have you for any ships?

Admiral McVAY. We made a contract for 200 experimental a short time ago to test them on the range.

Mr. KELLEY. What have you expended the \$51,000,000 for under this ammunition program?

Admiral McVAY. It is for the 6-inch projectiles chiefly and the powder.

Mr. KELLEY. How much is completed?

Admiral McVAY. We have all of it for the *Washington*, all for the *West Virginia*, all for the *South Dakota*, all for the *Indiana*, all for the *Montana*; for the *North Carolina* we have only got a part of it, because they were under order at the South Charleston plant; for the *Iowa* we have 900, and for the *Massachusetts* we have about one-half of this, and the other half is under contract.

Mr. KELLEY. How much does that run into money? Had you finished your statement?

Admiral McVAY. No, sir. For the *Lexington*, we have 1,800; for the *Constellation* we have 1,800, or the full amount; for the *Saratoga* we have 1,800, or the full amount; for the *Ranger*, we have the full amount; for the *Constitution* we have 1,800, or the full amount; and for the *United States* we have 1,800 on hand.

Mr. KELLEY. I want to know in dollars and cents where this \$51,000,000 goes.

Admiral McVAY. The 16-inch ammunition comes to about \$24,-500,000.

Mr. KELLEY. That you have on hand?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Where is the rest of the \$51,000,000?

Admiral McVAY. I can put that in the record.

Mr. KELLEY. Please send up a statement, as soon as you can, showing exactly what you have done with the \$168,000,000 that you spent for armor and armament, and the \$51,000,000 that you spent for ammunition, showing the ships on which it has gone, the guns, or types of guns, and the kinds of ammunition.

Admiral McVAY. I will furnish that.

3-INCH AND 5-INCH GUNS.

Mr. KELLEY. When did you change these guns from 3-inch guns to 5-inch guns?

Admiral McVAY. That has been planned for new construction battleships and airplane carrier.

Mr. KELLEY. I notice that the ship's data book, dated July 1, puts them down as 3-inch guns. I am referring to these antiaircraft guns.

Admiral McVAY. The department directed batteries of 5-inch guns placed on late battleships.

Mr. KELLEY. When was that done?

Admiral McVAY. About 10 months ago.

Mr. KELLEY. It did not get into this book.

Admiral McVAY. No, sir; it was since that book.

Mr. KELLEY. This book was printed the 1st of July?

Admiral McVAY. That has been nine months now. I will give you the date of that direction.

Mr. KELLEY. Had you made any 3-inch guns?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Are you throwing them aside and making 5-inch guns?

Admiral McVAY. No, sir. Do you mean had we made the 3-inch guns?

Mr. KELLEY. Yes.

Admiral McVAY. No, sir; we had 3-inch guns left over from the war.

Mr. KELLEY. You decided to leave them and make 5-inch guns?

Admiral McVAY. Yes, sir; after the test of the 3-inch guns. We went into the question of antiaircraft defense much more extensively, and, as a matter of fact, we are still carrying out tests at the proving ground.

Mr. KELLEY. These ships were designed before the war, and out of your experience you figure that the 5-inch antiaircraft gun is much more valuable?

Admiral McVAY. Yes, sir.

Mr. KELLEY. How much more do they cost than those you have on hand, or the 3-inch guns?

Admiral McVAY. The 5-inch gun costs \$12,000, and, I think, the 3-inch gun costs about \$4,000, as I remember it.

Mr. KELLEY. That much more?

Admiral McVAY. No, sir; the 3-inch gun will cost \$4,000 as compared with \$12,000 for the 12-inch gun.

Mr. KELLEY. Are the mounts the same?

Admiral McVAY. No, sir; the mounts are more expensive.

Mr. KELLEY. What would be the difference in the mounts?

Admiral McVAY. The 5-inch mount costs \$18,500.

Mr. KELLEY. What does the 3-inch mount cost?

Admiral McVAY. About \$7,800.

Mr. KELLEY. Do you have the mounts for the 3-inch guns?

Admiral McVAY. Yes, sir; we have the mounts for them. We have a sufficient number to put the 3-inch guns on the ships temporarily until we can get the 5-inch guns for them; but they are not at all satisfactory.

Mr. KELLEY. How many 3-inch guns have you on hand?

Admiral McVAY. A large number.

Mr. KELLEY. And how many mounts?

Admiral McVAY. We have a large number of them on hand.

Mr. KELLEY. Do you have any 5-inch guns mounted for this purpose?

Admiral McVAY. No, sir.

Mr. KELLEY. You know just what I want?

Admiral McVAY. Yes, sir.

Mr. KELLEY. I want a history of your ammunition situation and a history of your gun situation.

Admiral McVAY. I will furnish that.

AUXILIARIES.

Mr. KELLEY. You have four auxiliaries here. Are all of them to be finished?

Admiral TAYLOR. Yes, sir; they are not barred by the conference.

Mr. KELLEY. Will any of them be finished before the 1st of July?

Admiral TAYLOR. No, sir.

Mr. KELLEY. How much will you require for them after the 1st of July?

Admiral TAYLOR. To finish them after the 1st of July, including the gunboat, about \$9,000,000 will be required. Normally three of them would be finished next year. I should say that the work is suspended on the *Holland*, at Puget Sound, because of lack of funds; but it is being carried along on the *Medusa*.

Mr. KELLEY. How much of the \$9,000,000 will be required next year?

Admiral TAYLOR. If they were carried on at the normal rate, there would be required about \$7,000,000.

Mr. KELLEY. Admiral McVay, you do not have anything to do with these tenders or gunboats, do you?

Admiral McVAY. Yes, sir. As of the 1st of January, there was required \$1,000,000 to complete the gunboats and four auxiliaries.

Mr. KELLEY. You will do that before the 1st of July, will you not?

Admiral McVAY. I think it will be safe to say that it will require about \$300,000 after the 1st of July.

Mr. KELLEY. What is it that you have not on hand that you must manufacture for the gunboats? Is this a 3-inch gun?

Admiral McVAY. No, sir. That is practically finished.

r. KELLEY. You do not want any money for that at all?

Imiral McVAY. No, sir.

r. KELLEY. You do not have anything to do with the repair ships tenders?

Imiral McVAY. That covers the batteries for all the repair ships tenders.

r. KELLEY. What do you need for that?

Imiral McVAY. \$1,000,000.

r. KELLEY. What do you need it for?

Imiral McVAY. We do not need it after the 1st of July.

r. KELLEY. You do not need anything at all for that next year?

Imiral McVAY. No, sir.

DESTROYERS.

r. KELLEY. There are three more destroyers: How much will want for them after the 1st of July?

Imiral TAYLOR. Nothing. They are being finished under the emergency fund, and will be finished this year. They are not in the "Increase of the Navy," anyway. I might say that the cost of those we will build at Mare Island will be apparently 0,000 apiece, as against \$1,500,000 or \$1,600,000 for those we are building by contract. The work on them progressed rather slowly, I was uneasy for fear they would cost more than that.

r. KELLEY. The other destroyers will not be built?

Imiral TAYLOR. No, sir.

r. KELLEY. You will not need any money for destroyers?

Imiral McVAY. No, sir.

r. KELLEY. You had some \$10,000,000 last year, as I recall, left from that fund?

Imiral McVAY. Yes, sir.

r. KELLEY. Have you any of that left?

Imiral McVAY. We have a balance of about \$11,000,000.

r. KELLEY. You had a \$40,000,000 fund, and the department divided it up with some other offices. How much did they leave you?

Imiral McVAY. \$11,000,000.

r. KELLEY. You have not spent any of it?

MANUFACTURE OF TORPEDOES.

Imiral McVAY. We are expending it in the manufacture of torpedoes right along.

r. KELLEY. Have you made torpedoes for the battleships that are scrapped?

Imiral McVAY. Yes, sir.

r. KELLEY. Are they of the same size? They fit the same tubes, do they not?

Imiral McVAY. No, sir. This is the actual number of torpedoes ordered under the department's ruling, and I can not change it at all. But I have recommended that we cut it down. I think that recommendation will be approved.

r. KELLEY. When did they make this ruling—since the conference?

Imiral McVAY. No, sir.

SUBMARINE CONSTRUCTION.

Mr. KELLEY. How much will you need to finish the submarines that are under construction?

Admiral TAYLOR. Before that, may I suggest that we are embarrassed from time to time by the fact that "Increase of the Navy" is in these two appropriations, "Torpedo boats" and "C. and M.," and if you gentlemen could see your way clear to put it in one appropriation it would save some money and avoid embarrassments from time to time.

Mr. KELLEY. This is carried in a separate paragraph under "Increase of the Navy"?

Admiral TAYLOR. Yes; and the estimate was entirely inadequate. That was simply put in for the reason that we knew that the estimate last year would be revised. The amount allowed last year was \$5,000,000. As to the S boats, S-10 to S-51—there are 38 on the list—we will need to complete after the 1st of July about \$12,500,000.

Mr. KELLEY. How many of them are there?

Admiral TAYLOR. There are 38 S boats on that list, and 41 all told, including the three V type.

Mr. KELLEY. Do you expect to finish them next year?

Admiral TAYLOR. As you know, those boats have been almost in suspense for nearly two years owing to troubles about the machinery and inability to agree with the contractors as to what should be done. Recently that has all been cleared up; we have rewritten those contracts on a lump-sum basis and we are now prepared to go ahead and finish those boats very promptly. That has recently been done; we have stopped all the cost-plus business and they are on a lump-sum basis. They give us machinery that Admiral Robison thinks is wanted in them.

Mr. KELLEY. They are going to make everything satisfactory?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Are the engines all right?

Admiral TAYLOR. The engines, I think Admiral Robison will tell you, will be satisfactory. Of course, I only know it by hearsay, but we have accomplished a great deal in putting these vessels under a lump-sum contract and forcing the contractor to give us ships that are satisfactory.

Mr. KELLEY. The engines are all right, are they?

Admiral ROBISON. The best we can get.

Mr. KELLEY. They are not all right, but they are the best you can get?

Admiral ROBISON. They are the best that we can get.

Mr. KELLEY. They are not perfectly satisfactory to you?

Admiral ROBISON. They are the best I can get; I would not like to say anything more than that. The faults with the engines in the past have been very serious; the engines have failed when we tried to use them and the shafts have broken, but I do not think the shafts will break in the new ones, and it appears that many of the minor defects will have been corrected. However, the fact remains that the development of the Diesel engine has just about reached the stage that the steam engine had reached in 1840, and we are not going to obtain quite as satisfactory machinery as I could wish for; but, considering the date of the designs, I think it is fair to the contractor to do

hat we have done, and I do not think we have a right to haggle as to minor defects.

Mr. KELLEY. Do you think you ought to have 40 men besides the crew to take care of every submarine in the Navy?

Admiral ROBISON. On each boat?

Mr. KELLEY. Yes.

Admiral ROBISON. The Germans did during the war; I do not know how many are necessary, but there is nothing I know of that requires careful training so much as the crew of a submarine.

Mr. KELLEY. The crew goes out, and it is rather arduous and difficult service.

Admiral ROBISON. The first thing they have to do is to keep it from sinking.

Mr. KELLEY. But I mean they can not stay out very long at a time without discomfort, because they do not have any physical comforts on the ship itself.

Admiral ROBISON. There is no opportunity for moving about or for exercising, and it is unhealthy.

Mr. KELLEY. When they come in how long should they stay, as a rule, to rest up?

Admiral ROBISON. The Germans during the war, when they were operating them at their fastest rate, kept them in port a little more than half the time.

Mr. KELLEY. That was the very best they could do when the life of their nation was at stake?

Admiral ROBISON. That was the best they could do.

Mr. KELLEY. In peace times they would not attempt anything like that?

Admiral ROBISON. No; we would not have any expectation of getting more than 20 per cent of operating time; I think that, as a rule, sir, they are limited to 20 per cent of operating time.

Mr. KELLEY. If a crew operated one week out of four they could come in and rest up comfortably in another week, I suppose, and then they would have a couple of weeks in which they could assist in making repairs and that kind of work.

Admiral ROBISON. Yes; they are doing that pretty much continuously.

Mr. KELLEY. I know, but we have a situation where we have 40 men in addition to the crew for every submarine in the Navy.

Admiral ROBISON. Yes. We are hampered in the submarine crews, and in most cases where we need artisans by the necessity of carefully training the men to do the special work. You have been on a submarine, have you not?

Mr. KELLEY. Yes.

Admiral ROBISON. Think of the fellow who determines whether the bow goes up or down.

Mr. KELLEY. I know it is very arduous.

Admiral ROBISON. No; that is not difficult if you know how.

Mr. KELLEY. It is like everything else.

Admiral ROBISON. But we have got to get some people who know how, and we have to take farmer boys and make them fit.

Mr. KELLEY. We could figure on these ships being in port about three-fourths of the time in peace time?

Admiral ROBISON. I think 20 per cent is the maximum amount that they are allowed to be under way, under the orders of the Chief of Operations, but that is an order that is not addressed to me, and I can not give you a definite answer.

Mr. KELLEY. Admiral McVay, are you interested in these submarines for next year?

Admiral McVAY. Only to the extent of the torpedoes.

Mr. KELLEY. You have a lot of submarines on hand, and could not take the torpedo tubes off of them and put them right on other ships?

Admiral McVAY. No, sir; we have not a sufficient number.

Mr. KELLEY. Are they different?

Admiral TAYLOR. The submarine tubes are built in the hull; are fixed, and the tubes have to be made for each boat specially.

Mr. KELLEY. But the torpedo is the same, is it not?

Admiral McVAY. No, sir; it has a short range.

Mr. KELLEY. Could you not use the old type of torpedo, the short ones?

Admiral McVAY. No, sir. All of the old short ones that are assigned to vessels are the ones——

Mr. KELLEY (interposing). You have a lot of old short ones, vessels that are to be scrapped; you have 15 old battleships that are to be scrapped, and those torpedoes are short, I suppose, and the same length as these, are they not?

Admiral McVAY. No, sir.

Mr. KELLEY. How much do you want for torpedoes on these ships?

Admiral McVAY. We will spend \$1,800,000 to complete the submarine program.

Mr. KELLEY. After the 1st of July?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Does that include these fleet submarines?

Admiral TAYLOR. No, sir. Of the fleet submarines, there are building at Portsmouth, and they will cost in the end about \$4,000 apiece, at least, those are the bids we get from outside people, and I thought we ought to have next year about \$3,250,000 to carry on the work; in other words, we would carry on the work at a four-year rate and that is about the rate at which the work has been proceeding so far.

Mr. KELLEY. \$3,250,000 for the three?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. And you will need all of that next year?

Admiral TAYLOR. Yes, sir. It will take \$12,000,000 for the ships, and we are counting on using \$3,250,000 for the three-year program.

Mr. KELLEY. Will it take \$12,000,000?

Admiral TAYLOR. \$12,000,000 is the total cost. I might say those vessels are of a new type, and the fleet is very anxious to get them in service for the purpose of developing tactics and all that sort of thing.

Mr. KELLEY. Are these engines known to work all right?

Admiral ROBISON. They are the best engines there are. During the war the Germans developed a submarine engine in much the same way that we developed the Liberty engine; they brought together the talent they had in Diesel engine building, they combined all

tents, all their experience, and evolved an engine which we have been able to duplicate. We believe that this engine, which is an American product—it is made in St. Louis—is as good an engine as the one the Germans have been making.

Mr. KELLEY. Why would it not be better to finish one and see whether it is all right before you spend so much money?

Admiral ROBISON. You refer to the engine?

Mr. KELLEY. Yes.

Admiral ROBISON. We have.

Mr. KELLEY. You know it is all right?

Admiral ROBISON. Yes; I know it is all right. I do not think it is possible that any engine to-day, of the Diesel engine type, will be considered 20 years hence to be satisfactory.

Mr. KELLEY. Oh, no. How does the cost of these compare with the other fleet submarines we have?

Admiral TAYLOR. They are approximately double the displacement and double the cost. The other fleet submarine cost about \$1,500,000, but they are vessels of something over 1,000 tons, and they were constructed for before the war, while these vessels are entirely different. These are of our own design and are the first fleet submarines we have undertaken to design.

Mr. KELLEY. Admiral McVay, how much are you interested in these three?

Admiral McVAY. These are included in the others.

Mr. KELLEY. Admiral how much money have you unexpended as of the last available date?

Admiral TAYLOR. For increase of the Navy, construction and maintenance, \$14,350,000; that was as of the 1st of March, as closely as we can estimate it.

Mr. KELLEY. You mean unexpended or unobligated?

Admiral TAYLOR. Unexpended.

Mr. KELLEY. That is the cash on hand on that date?

Admiral TAYLOR. That is the money which has not gone out of our construction and maintenance appropriation, but it is all obligated and more than obligated.

Mr. KELLEY. How much did you have appropriated last year?

Admiral TAYLOR. Under construction and maintenance, \$53,000,000, sir; and we had a balance on the 30th of June of \$5,117,000.

Mr. KELLEY. What other building funds have you besides this?

Admiral TAYLOR. The submarines, sir, "Increase of the Navy, torpedo boats."

Mr. KELLEY. And how much did you have on hand on March 1 in that fund?

Admiral TAYLOR. \$6,278,000.

EMERGENCY FUND.

Mr. KELLEY. You have another fund, have you not, an emergency fund, and how much have you in that fund?

Admiral TAYLOR. You mean the \$350,000,000 fund?

Mr. KELLEY. Yes.

Admiral TAYLOR. We expect to have a little balance in time; that is, when we are paid back from the contractors, but at present there

is practically nothing in that fund; I think the nominal balance \$200,000 or \$300,000 of our allotment.

Mr. KELLEY. Then, all the funds which you and Admiral Robison have—

Admiral TAYLOR (interposing). There is one other fund, the emergency fund, in which there is no balance so far as we are concerned. The only real money we have is in "Increase of the Navy."

Mr. KELLEY. The total is \$20,628,000, and that represents a dollar you can get your hands on legally for shipbuilding?

Admiral TAYLOR. On the 1st of March so far as I know, sir: those minor exceptions of which I spoke.

Mr. KELLEY. How much are you expecting to spend between and the 1st of July on the *Colorado*?

Admiral TAYLOR. I have not the allotments between now and 1st of July. The total amount allotted to the *Colorado* and *Lexington* together at the beginning of the year was \$4,900,000, of which the major portion has been spent. As you know, we had to make an allotment to each ship and to each yard at the beginning of the year.

Mr. KELLEY. That was for the year, was it?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. About \$400,000 a month. Would that be \$1,600,000 if you built along at the same rate, that is, at the rate of \$400,000 a month?

Admiral TAYLOR. Perhaps I can explain that by saying that we allotted the New York Shipbuilding Corporation, which had two vessels and a battle cruiser, for expenditure during the year \$8,900,000. We told them that if they spent all the money they would not get any more, but as regards the individual ships they had to be a little come and go within the yard allotment. The allowance in that on the 1st of March was \$2,300,000, which we had expected to spend on the ships building there, either the *Colorado* or *Lexington*, if she were converted. Of course, Mr. Chairman, I shall explain that that money is also over-obligated. We have liabilities—

Mr. KELLEY (interposing). We will handle those in a separate way, I think, so let us keep to these funds for building purposes. This money available on the 1st of March is money with which to build and not with which to settle.

Admiral ROBISON. Then I understand that all of our obligations in connection with these vessels will be handled separately.

Mr. KELLEY. That is what we want to do.

Admiral TAYLOR. There are pressing debts that would absorb a good deal of the \$20,000,000.

Mr. KELLEY. How much would you say you would expend on the *Colorado* during the rest of the year?

Admiral TAYLOR. Well, we have been going along—

Mr. KELLEY (interposing). You have been spending \$400,000 a month and you were allotted \$4,900,000 for two ships.

Admiral TAYLOR. Yes; but a good deal of that money was absorbed in paying the May and June bills and that could not be uniformly distributed. At the beginning of this calendar year we figured an approximate expenditure on the *Colorado* of \$226,000 a month; that is the rate at which we were spending.

Mr. KELLEY. Then there are four months at about a quarter of a million a month?

Admiral TAYLOR. If we kept on at the same rate.

Mr. KELLEY. Do you want to drop back?

Admiral TAYLOR. No; for the sake of economy we should go ahead.

Mr. KELLEY. Suppose that for these three months or four months run along about as we are now, just taking an easy calculation, it would be about \$1,000,000 on each of these ships?

Admiral TAYLOR. Approximately.

Mr. KELLEY. How much faster than that would you like to go?

Admiral TAYLOR. We would like to go about three times as fast. slow up and pay the overhead of a big yard is a very expensive proposition for the Government.

Mr. KELLEY. You probably would not want \$1,000,000 for each ship rest of the year.

Admiral TAYLOR. Not for the rest of the year; no, sir; because there is not enough money to do that.

Mr. KELLEY. For each of these two ships you were spending \$225,000 a month, and for four months that would make \$1,000,000 on each ship?

Admiral TAYLOR. That was the rate at which we were spending, we tried to figure as closely as we could on the first of the year money which was to go out on all of these ships, but you must remember that taking the year as a whole we only have 40 per cent of that we would normally spend if we had a free hand on this whole program. We gave a little preference to the *Colorado*, and the allotment of that money was one of the most difficult jobs we have ever

Mr. KELLEY. You have been very considerate of the business situation in the country, and it has been very helpful to us. Even if it costs us a trifle more, the burden is so great that we appreciate the consideration.

Admiral TAYLOR. All we did was to cut our coat to suit the cloth we had.

BATTLE CRUISERS.

Mr. KELLEY. You would not need anything for the battle cruisers during the rest of the year?

Admiral TAYLOR. We are spending money on them every day, sir, until we get that bill through.

Mr. KELLEY. Are you really going forward with the construction?

Admiral TAYLOR. No, sir; we have suspended everything, but we must be prepared to resume the work, and we can not help spending the bit on them.

Mr. KELLEY. Did not Mr. Butler say he would put that through promptly?

Admiral TAYLOR. I think they expect to do it promptly.

Mr. KELLEY. So it would be a rather negligible amount?

Admiral TAYLOR. Unless we get the money to pay for scrapping it would not be a large sum; no, sir.

Mr. FRENCH. How does it run in comparison with ships being built under contract?

Admiral TAYLOR. I am referring to ships under contract.

Mr. KELLEY. Suppose the bill should be passed within a month, say, by the 1st of April: there would be three months of this year left, and it would take you that long to get your plans perfected.

Admiral TAYLOR. Yes, sir; we would not spend a large amount on those ships this year.

Mr. KELLEY. So we can, in a general way, just eliminate that!

EXPENDITURES FOR MACHINERY.

Admiral TAYLOR. I would not say eliminate it, because the machinery is going ahead, and the machinery will be practically unchanged, and we would at once get the plans out which are necessary to carry on.

Mr. KELLEY. Let us get the amount necessary for the machinery.

Admiral ROBISON. You mean how little we can get along with?

Mr. KELLEY. Yes. During the rest of the year about how much would you naturally expend?

Admiral ROBISON. For the two ships?

Mr. KELLEY. For the *Colorado* and *West Virginia* you have \$2,000,000 down here; that will be about \$225,000 a month both for construction and machinery, so in a way it is included here, and would not that take care of you all right?

Admiral TAYLOR. We were spending on those ships, with the exception of the *Ranger*, which was practically suspended and very little work going on—but on the other ships building under contract we were spending at the rate of from \$350,000 to \$500,000 a month.

Mr. KELLEY. On these two?

Admiral TAYLOR. On the *Lexington*, *Constellation*, and *Saratoga*. They ran \$532,000, \$343,000, and \$348,000 a month.

Mr. KELLEY. How would that be divided between machinery and construction?

Admiral TAYLOR. That would be approximately, as regards the one on which we are spending \$350,000, about \$150,000 or \$200,000.

Admiral ROBISON. \$150,000 each is my figure.

Mr. KELLEY. About how much will be required for machinery on the airplane carriers?

Admiral ROBISON. \$10,000 per calendar day.

Mr. KELLEY. And there would probably be about three months left after you get authority to make the expenditures?

Admiral TAYLOR. Yes, sir. If the bill is not passed until the 1st of April we will have the plans ready to resume work on them very promptly. We are working on the plans now, of course.

EXPENDITURES FOR THE FISCAL YEAR 1922.

Mr. KELLEY. We will go ahead now with the expenditures for the balance of this fiscal year. On the basis that these cruisers are going to be converted, how much will you require this year for going forward with the work?

Admiral TAYLOR. For these two cruisers?

Mr. KELLEY. Assuming now it will take some little time to get your plans ready and there are only four months left altogether from the 1st of March.

Admiral TAYLOR. We would spend at least \$1,250,000 on those.

Mr. KELLEY. On the two?

Admiral TAYLOR. Yes, sir; we could spend \$3,000,000 on the two we had the money.

Mr. KELLEY. There is no hurry or rush about this work. Let us make \$1,250,000 and see how we come out. You will not need to do anything the rest of this year on the airplane carriers.

Admiral McVAY. I figured out about \$200,000 a month ought to cover that.

Mr. KELLEY. We are only handling this fund now, anyhow. The 1,250,000 is for the two.

Admiral TAYLOR. That is the very minimum, sir.

Mr. KELLEY. Now, on the scout cruisers, at what rate have you been spending on them for the last eight months.

Admiral TAYLOR. The allotment for the year to the scout cruisers is \$13,150,000, which was at the rate of building them in six years, and we have been carrying on the work at that very slow rate. We would spend at least \$5,000,000 in this last four months.

Mr. KELLEY. That is only a little bit faster than you have been building them during the past year.

Admiral TAYLOR. Not very much. I must say it is somewhat faster because a lot of that allotment of \$13,150,000 was virtually gone when it was allotted in paying back bills and paying up for materials, so that we spent money faster the first part of the year than we are spending it now, but you can see for yourself that the \$13,000,000 would be a little over \$4,000,000 for the four months, and if we carried the work on at that slow rate we would spend over \$4,000,000 in the four months, and \$5,000,000 is a modest figure.

Mr. KELLEY. Now, as to the auxiliaries, how much do you want to spend on those?

Admiral TAYLOR. \$1,500,000 for the rest of the year, approximately.

Mr. KELLEY. That is for the five and includes the gunboat.

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. How much on the destroyers? That is out of another fund, is it not?

Admiral TAYLOR. Yes; that comes out of the naval emergency fund and is not a part of the balance we are considering.

Mr. KELLEY. Then, as to the submarines, how much do you think you ought to have for the rest of the year on those?

Admiral TAYLOR. We were a little hampered about that. One of the conditions which the contractor wished to introduce in connection with the making of this lump-sum contract—I am referring now to the E. B. Company, was that he should have a schedule of completion so that the work would not dawdle. He wanted more than we were able to allot him with that balance available, so that we would want to spend every penny of that during the rest of this year.

Mr. KELLEY. Every penny of what?

Admiral TAYLOR. Of the balance we now have of \$6,000,000. If you will look at those submarines, Governor, you will see that four of them are nearly completed and we are very anxious to get those boats completed and clean them up, and we have allotted them enough money to finish them this spring.

Mr. KELLEY. How much is that for the rest of the year?

Admiral TAYLOR. That is something like four or five hundred thousand dollars.

Mr. KELLEY. I mean altogether for submarines.

Admiral TAYLOR. Altogether for the S boats and the fleet submarines, in round figures, it is \$6,000,000 for the last four months of the year.

Mr. KELLEY. That is crowding them along pretty fast, is it not?

Admiral TAYLOR. No, sir; you must remember that we have \$14,197,000 available the 1st of July, but there was very little been done on the E. B. Company submarines until we came to this re-agreement about a month ago, so although the work was not suspended it was very nearly suspended, and in discussing the matter with the contractor, he said, "I can not afford to make a lump-sum contract and then wait indefinitely until Congress appropriates money to finish these vessels." That was one of the difficulties of negotiation, and one point was that he wanted us to spend \$5,000,000 on those vessels alone for the rest of the year, but we could only give him \$3,000,000.

Mr. KELLEY. You want to spend the balance of this money for the rest of this fiscal year and clean them all up?

Admiral TAYLOR. No, sir; not clean them all up, but clean up four Lake boats. We need in addition to that \$6,000,000. \$12,000,000 more to finish all the S boats.

Mr. KELLEY. That is for next year.

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. But you want to spend \$6,000,000.

Admiral TAYLOR. Yes; in cleaning up the Lake boats and carrying on the work under the lump-sum contract.

Mr. KELLEY. Is that all?

Admiral TAYLOR. That is all; yes, sir.

Mr. KELLEY. That makes \$15,750,000 out of a total of \$20,628,000.

Admiral TAYLOR. Yes, sir; and that is reducing them down.

Mr. KELLEY. And then you figure you would not have a balance over \$5,000,000 on the 1st of July.

Admiral TAYLOR. No, sir; we really ought not to have that balance. We ought to get the work done. I am looking at it from the point of view of getting the work done economically.

Mr. Chairman, I think you have overlooked one battleship.

Mr. KELLEY. Is not the *Maryland* finished?

Admiral TAYLOR. Either the *West Virginia* or the *Washington*.

Mr. KELLEY. No; we have those here—the *Colorado*, the *West Virginia*, or the *Washington*—\$1,000,000 apiece.

Admiral TAYLOR. I do not like to question your arithmetic, but there must be a mistake somewhere.

Mr. KELLEY. It adds up all right.

Admiral TAYLOR. Have you included \$5,000,000 for the scout ships?

Mr. KELLEY. \$5,000,000 for the scouts.

Admiral TAYLOR. And \$2,000,000 for the two battleships?

Mr. KELLEY. And \$1,250,000 on the airplane carriers, and \$1,500,000 and \$6,000,000 on the submarines.

Admiral TAYLOR. Yes; that seems to be right. There are many odds and ends of bills yet to be paid.

Mr. KELLEY. What about the bills that will come in on these that are to be scrapped; you are not paying any of those now?

Admiral TAYLOR. We are not paying anything we can avoid, but they are still coming in, and we still owe the money. The approximate total obligation outstanding the 1st of February was \$37,000,000. That does not include the cost of scrapping. They are the contracts extant.

Mr. KELLEY. Let me see if I have that straight. Suppose you ordered material for one of the ships that is to be scrapped and the material is fabricated and not yet delivered, would not that be a proper charge against the scrapping?

Admiral TAYLOR. That would be, and that is what we would expect to do; but until we get that authority these people are still purchasing material and delivering it and sending in the bills.

Mr. KELLEY. And are you paying for that now?

Admiral TAYLOR. We have to pay for it. We are putting off all we can, but we have to pay some of it. It is a legal bill.

Mr. FRENCH. Why could not the fabrication of that material be sold up?

Admiral TAYLOR. We have suspended all the work.

Mr. KELLEY. That would be a proper charge against the loss from the scrapping?

Admiral TAYLOR. Yes, sir. We are slowing that down to the very minimum; but if a man delivers the material he has a written contract, and there is the money there to pay him.

Mr. KELLEY. And, of course, it is the same thing in the end to the Government.

Admiral TAYLOR. Yes. We are stretching it as much as we can, but we can not absolutely stop expenditures. Those obligations tant are in the neighborhood of \$37,000,000 for material, subcontractors, and that kind of thing. In addition to that, we have the question of the fees to the shipbuilders, which will amount to ten or eight million dollars more.

Mr. KELLEY. That is in the cost of the scrapping?

Admiral TAYLOR. Yes, sir; and in addition to that there is the cost of the scrapping itself, inventorying, the general adjustments, a cost of sale, etc., and we have not been able to figure so far that the cost of the scrapping would be much, if any, under \$50,000,000; in fact, my people insist it is going to be more, but I am rather optimistic.

TUESDAY, MARCH 14, 1922.

Mr. KELLEY. We have with us this morning Admiral McVay and his assistants, of the Bureau of Ordnance. Admiral, we will follow the suggested outline I sent you, because I suppose that will be the best way to approach this.

Admiral McVAY. Yes, sir.

UNEXPENDED BALANCES ON HAND JULY 1, 1921.

Mr. KELLEY. What are the unexpended balances you had on hand the various appropriations as of July 1, 1921?

Admiral McVAY. Increase of the Navy, armor and armament, \$726,775.02; increase of the Navy, ammunition, \$12,411,055.43; increase of the Navy, torpedo-boat destroyers, ordnance, \$12,828,-

745.36; increase of the Navy, torpedo-boat destroyers, torpedo assembly plant, Alexandria, Va., \$89,364.30; naval emergency fund, ordnance allotment, \$894,255.67; appropriations under ordnance for increase of the Navy, armor and armament, fiscal year 1922, \$33,000,000.

Mr. KELLEY. Did you have any money from any other sources?

Admiral McVAY. To these appropriations should be added amounts returned from the War Department in adjustment of requisitions not completed, as follows: Increase of the Navy, armor and armament, \$196,927.20; increase of the Navy, torpedo-boat destroyers, ordnance, \$2,844,948.60.

Mr. KELLEY. Making a total available on the 1st of July, 1921, how much?

Admiral McVAY. \$83,992,071.58.

UNEXPENDED BALANCES FEBRUARY 1, 1922.

Mr. KELLEY. Give us substantially the same information for the last available date, February 1 or March 1, 1922.

Admiral McVAY. The last available date is February 1, 1922. Balance under increase of the Navy, armor and armament, \$27,935,364.02; increase of the Navy, ammunition, \$6,956,762.94; increase of the Navy, torpedo-boat destroyers, ordnance, \$13,703,979.16; increase of the Navy, torpedo-boat destroyers, torpedo assembly plant, Alexandria, Va., \$48,559.60; naval emergency fund, ordnance allotment, \$937,992.26. That is higher than the balance last year on account of a credit adjustment from the Bureau of Supplies and Accounts, where they found they had charged about \$100,000 twice. That makes a grand total of \$49,582,657.98.

OUTSTANDING CONTRACT OBLIGATIONS.

Mr. KELLEY. The next item will represent your outstanding contract obligations under each of the appropriations reported.

Admiral McVAY. For ships to be completed: Increase of the Navy, armor and armament, \$6,141,421.81; increase of the Navy, ammunition, \$2,467,301.58; increase of the Navy, torpedo-boat destroyers, ordnance, \$1,529,209.04; increase of the Navy, torpedo-boat destroyers, torpedo assembly plant, Alexandria, Va., \$3,983.10; naval emergency fund, ordnance, \$564,384.

Mr. KELLEY. That makes a total of all outstanding obligations how much?

Admiral McVAY. \$10,706,300.18. This is distributed by vessels and under vessels by objects outstanding and contract obligations reported under paragraph 6 hereof.

Mr. KELLEY. That is the information you just gave?

Admiral McVAY. That is tabulated below; yes, sir. There is a note to that which I want to enter here: The total contract obligations reported by the Bureau of Supplies and Accounts includes contracts, work on which has been suspended, and also contracts for miscellaneous manufacturing equipment and material incident to manufacturing work at navy yards, the expense of which totals \$3,368,248.22, as opposed to the balance which we gave, because they have the bookkeeping data only, and we have distinguished between

the actual contracts which will have to be completed and those that will be canceled.

Mr. KELLEY. The sum which you gave a few moments ago, of \$10,-000,300, represents contracts which must be completed?

Admiral McVAY. Yes, sir.

CANCELLATION OF UNOBLIGATED CONTRACTS.

Mr. KELLEY. And the other sum of \$25,000,000 represents contracts which will be canceled?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And that will involve a settlement with the contractors for the material that has been delivered and the question of paying for it would properly be chargeable to cancellation just the same as though it had not been delivered?

Admiral McVAY. No, sir.

Mr. KELLEY. Well, suppose, for example, you have a certain number of millions of dollars of supplies which you have purchased for the use of the ships that are being discontinued, but have not yet been paid for; in order to keep this record straight as of the time when the cancellation was made, it would seem to me that that item would be properly charged against the cancellation and would be carried into a lump sum for cancellation rather than loaded on to the Navy as a running expense.

Admiral McVAY. I see what you mean and I am trying to see whether we could handle it in that way.

Mr. DAVIS. What constitute the elements of a cancellation charge?

Admiral McVAY. I have explained to Governor Kelley that when sent out our orders on the 8th of February to suspend work, at the same time we instructed the inspectors to make an inventory of all material in its various stages, and to report that to the bureau. In addition to that, we had the larger manufacturers in the bureau and asked them to give us an itemized list of their standby charges. You see, the work is suspended, not stopped. Our instructions are to be ready to start it at any time in case it is necessary.

ELEMENTS CONSTITUTING A CANCELLATION CHARGE.

Mr. DAVIS. I should like to know, for my own satisfaction, what are the elements which constitute a cancellation charge complete?

Admiral McVAY. The main elements would be payment of cost of manufacture up to the time the work is stopped.

Mr. DAVIS. It does not constitute any prospective profit on the contract or anything of that kind?

Admiral McVAY. No, sir. In addition to that, the various plants have to maintain a skeleton organization prepared to start the work.

Mr. DAVIS. That is an element?

Admiral McVAY. That is an element that enters in. Those are the only two elements that enter in. By the stoppage of the work we stopped in ordnance an expenditure of about \$80,000 a day. The suspension charge, so nearly as I can figure from the data I have obtained, which has not yet been thrashed out before a board, is about \$10,000 a day. In other words, instead of saving \$80,000 a day by

suspension we are saving something like \$70,000 a day roughly, but the suspension charge is regarded as a legitimate charge.

Mr. DAVIS. I am not questioning that. I just wanted for my information and for the record to show what were the elements coming within the meaning of a cancellation charge.

Admiral McVAY. Yes, sir.

AMOUNT OUTSTANDING AGAINST UNCOMPLETED SHIPS.

Mr. KELLEY. There are outstanding \$29,223,231.16 against all of these ships?

Admiral McVAY. Yes, sir; under "Armor and armament."

Mr. KELLEY. Of that \$29,223,231.16 some of the material has been delivered, but you do not know how much?

Admiral McVAY. No; because the Bureau of Supplies and Accounts is paying bills as they come in.

BALANCE OVER AND ABOVE ALL CONTRACT OBLIGATIONS FOR SHIPS TO BE FINISHED.

Mr. KELLEY. Admiral, in order to get this information in one statement, as I understand it, the total unexpended balances on February 1, 1922, were \$49,582,657.98?

Admiral McVAY. Yes, sir; under all appropriations.

Mr. KELLEY. Of that sum, there will be required \$10,706,300.18 to take care of outstanding contract obligations upon the ships that are not to be discontinued, and it is estimated that of this amount you will require \$36,435.725 to complete the work on vessels that are not to be discarded?

Admiral McVAY. Yes, sir; under all appropriations.

Mr. FRENCH. Do you mean that this amount is in addition to the \$10,000,000?

Mr. KELLEY. That is in addition to the \$10,000,000, is it not?

Admiral McVAY. Yes, sir.

Mr. FRENCH. This \$36,435.725 that Governor Kelley refers to pertains to money that may be appropriated during the coming fiscal year; is that right?

Admiral McVAY. No, sir; we will not require an appropriation.

Mr. FRENCH. It will be expended during the coming fiscal year?

Admiral McVAY. Yes, sir; some of it.

Mr. KELLEY. That is for the completion of all those projects, whether completed next year or not?

Admiral McVAY. Yes, sir; the \$10,000,000 plus the \$36,000,000, in round numbers.

Mr. KELLEY. Then, the difference between the \$36,435.725 plus \$10,706,300.18 and the \$49,582,657.98 would give a balance of nearly \$2,500,000 which you would have over and above all your contract obligations for ships that are to be finished?

Admiral McVAY. Yes, sir.

Mr. KELLEY. We can start, then, with about \$2,500,000 as the balance there?

Admiral McVAY. Yes, sir; that is, under different appropriations.

Mr. KELLEY. I am speaking of the sum total now, and it is a total of \$2,500,000 over and above all that will be necessary in your bureau to complete all the work on all the ships that are to be completed?

Admiral McVAY. Yes, sir.

Mr. KELLEY. That does not include aircraft carriers, I suppose?

Admiral McVAY. No, sir.

Mr. KELLEY. Because they are not now contract obligations.

Admiral McVAY. No, sir; that is true.

Mr. BYRNES. As I understand it, when you get through, or have completed all that are in process of construction, you will have a balance of practically \$2,500,000?

Admiral McVAY. Yes, sir.

AMOUNT REQUIRED FOR BALANCE OF THIS FISCAL YEAR AND NEXT YEAR.

Mr. KELLEY. Of the \$49,582,657.98, which you had on hand on the 1st of February, how much will be required for the balance of this fiscal year and how much will be required for next year?

Admiral McVAY. I will supply that for the record. Approximately \$4,800,000 for the balance of this fiscal year and approximately \$31,000,000 for next year.

Mr. KELLEY. Of the \$10,706,300.18 you propose to spend for fire control and optical instruments \$1,639,700.50?

Admiral McVAY. Yes, sir; for battleships.

AMOUNT INVOLVED IN CONTRACTS UPON VESSELS TO BE FURNISHED.

Mr. KELLEY. Of the \$49,582,657.98, \$10,706,300.18 is tied up in contracts upon vessels that are not to be stopped?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You will put in the record a statement showing how much of the \$10,706,300.18 will be required during the balance of this fiscal year?

Admiral McVAY. Yes, sir; approximately \$2,300,000.

AMOUNTS REQUIRED TO FULFILL ALL OUTSTANDING CONTRACTS NOT TO BE CANCELED.

Mr. KELLEY. The next is the distribution of the amounts estimated as necessary to finish all outstanding contracts that are not to be canceled, amounting in all to \$36,435,725?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You will put in the record a statement showing the part of that which will be needed during the coming fiscal year, from July 1 on?

Admiral McVAY. Yes, sir; approximately \$22,500,000 for contract payments and work at navy yards.

Mr. KELLEY. Of this amount, \$36,435,725, the contracts are not yet placed, and some of it to be done in the navy yards and Government plants?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And some by contract; but if done by contract, the contracts are not yet made?

Admiral McVAY. No, sir.

AMOUNT REQUIRED FOR BALANCE OF FISCAL YEAR FOR UNCANCELED CONTRACTS.

Mr. KELLEY. Would any part of this \$36,435,725 be required during the balance of this fiscal year?

Admiral McVAY. Yes; we are using that right along.

Mr. KELLEY. In the navy yards?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What part of that amount?

Admiral McVAY. We will have to put that in the same as the other. We could answer that roughly by saying \$450,000 a month under armor and armament; under ammunition we are running about \$94,000 a month; under torpedo-boat destroyers we are running about \$276,000 a month; and under the other appropriations the work is about finished.

Mr. KELLEY. At that rate you would need something over \$4,000,000 out of this fund for the remainder of the year?

Admiral McVAY. Yes, sir.

FINANCIAL STATUS OF BUREAU JULY 1, 1922.

Mr. KELLEY. So there would be a balance of approximately \$32,000,000 of this amount and whatever balance there was from the \$10,000,000 which represents contract obligations, plus the \$2,500,000 general surplus over all. That would represent about your financial situation on the 1st of July, would it not; and to make that perfectly accurate put in at this point a statement showing your financial condition on July 1, with the understanding as to cancellations that we have talked of. The main thing we want is your financial situation on the 1st of next July.

Admiral McVAY. Very well.

Estimated status as of July 1, 1922, of ordnance appropriations for new ships to be completed.

These figures are based upon the assumption that all outstanding obligations against the appropriations named, other than those specifically allotted to the ships to be completed, are to be transferred to a special "scrapping" appropriation; and, further, that the appropriations named are to be reimbursed from the special "scrapping" appropriation for all expenditures incurred and payments made since February 1, 1922, other than those incurred and made specifically on account of the ships to be completed.

Appropriation.	Estimated cash balance as of July 1, 1922.	Estimated contract obligations on July 1, 1922.	Estimated as necessary to complete in excess of outstanding contract obligations July 1, 1922.	Total estimated required to complete as of July 1, 1922.	Estimated as required for the fiscal year 1923.	Estimated total required after July 1, 1923.
Increase of the Navy:						
Armor and armament.....	\$25,684,576	\$6,210,211	\$4,895,535	\$11,105,746	\$10,203,197	\$202,549
Ammunition.....	6,211,770	2,123,774	3,241,220	5,364,994	5,062,960	302,034
Torpedo boat destroyers (Ordnance).....	12,469,912	8,671,442	17,432,747	28,104,189	15,750,337	10,353,852
Torpedo boat destroyers (torpedo assembly plant, Alexandria, Va.).....	44,576					
Naval emergency fund (Ordnance).....	373,608					
Total.....	44,784,442	17,005,427	25,569,502	42,574,929	31,016,503	11,558,426

Appropriation.	Estimated cash balance as of July 1, 1922.	Estimated contract obligations on July 1, 1922.	Estimated as necessary to complete in excess of outstanding contract obligations July 1, 1922.	Total estimated required to complete as of July 1, 1922.	Estimated as required for the fiscal year 1923.	Estimated total required after July 1, 1923.
These may be subdivided as follows:						
Increase of the Navy—						
Armor and Armament—						
Battleships.....		\$1,679,916	\$1,769,795	\$3,449,711	\$2,955,631	\$494,080
Scout cruisers.....		1,772,624	1,356,621	3,129,245	3,129,245	
Destroyers.....		2,293,471	298,607	2,592,078	2,592,078	
Submarines.....		464,200	1,333,513	1,797,713	1,389,244	408,469
Tenders and auxiliaries.....			136,999	136,999	136,999	
Total.....		6,210,211	4,895,535	11,105,746	10,203,197	902,549
Ammunition—						
Battleships.....		1,974,710	2,212,845	4,187,555	3,964,130	223,425
Scout cruisers.....		149,064	1,028,375	1,177,439	1,098,839	78,600
Total.....		2,123,774	3,241,220	5,364,994	5,062,969	302,025
Torpedo boat destroyers (ordnance).....		8,671,442	17,432,747	26,104,189	15,750,337	10,353,852
Total, all appropriations.....		17,005,427	25,569,502	42,574,929	31,016,503	11,558,426

AMOUNT TO BE EXPENDED NEXT YEAR ON BATTLESHIPS.

Mr. KELLEY. Are you ready to go into the question of construction for next year on the ships that are not be scrapped or had you, Admiral Taylor, and the committee better have a discussion about that?

Admiral McVAY. That is all covered in here; except as to the airplane carriers, that is all in here now.

Mr. KELLEY. How much do you want to spend next year on the battleships?

Admiral McVAY. Under "armor and armament," approximately \$2,900,000; increase of the Navy, ammunition, \$3,900,000.

Mr. KELLEY. That is for what ships?

Admiral McVAY. That is for the *Colorado*, the *Washington*, or *West Virginia*.

Mr. KELLEY. That is for two battleships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Have you the ammunition for the *Maryland*?

Admiral McVAY. We have that; yes, sir; except the 5-inch 25 caliber and some special type 16-inch.

Mr. KELLEY. And that is the amount included in here of \$266,400, is it?

Captain PINNEY. That is, the ammunition details for it and the projectiles are included in the item above.

Mr. KELLEY. So this is the total amount you will need for the three battleships next year?

Admiral McVAY. Yes, sir. Approximately as follows, for contract payments and work at navy yards: Armor and armament, \$2,900,000; ammunition, \$3,900,000; total, \$6,800,000.

Mr. KELLEY. Showing the amount to be spent on these three battleships next year?

Admiral McVAY. Yes sir; obligations already incurred and new obligations.

Mr. KELLEY. That is, for next year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. The proportion that is in the \$10,000,000 should be added here?

Admiral McVAY. Yes, sir; we will fix that.

Mr. KELLEY. There are certain items here that are under contract obligations and the others under navy yards?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And you have to put the two together in order to get the total for the battleships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Then suppose we confine this to the navy yards because this amount is tied up in contracts and that will take care of itself.

Admiral McVAY. Yes, sir. For work at navy yards on battleships in 1923: Armor and armament, approximately \$1,100,000; ammunition, approximately \$862,000; total, approximately \$1,962,000.

AMOUNT TO BE EXPENDED ON SCOUT CRUISERS.

Mr. KELLEY. How much for the scout cruisers?

Admiral McVAY. At navy yards and stations, for increase of the Navy, armor, and armament, \$1,102,000; increase of the Navy, ammunition, \$260,500.

Mr. KELLEY. The sum of those two items would represent what you require for the scout cruisers?

Admiral McVAY. Yes, sir; for work at yards and stations for 1923. That is chiefly for special ammunition and some mounts.

Mr. KELLEY. This is made necessary by changing the guns from 3-inch to 5-inch? I think you said the other day you had the 3-inch guns and mounts but it was decided to replace those with 5-inch guns.

Admiral McVAY. That was on the battleships, the new battleships.

Mr. KELLEY. These are not 3-inch guns, are they?

Admiral McVAY. No, sir. The scout cruisers have 3-inch guns.

Mr. KELLEY. So that has not been changed?

Admiral McVAY. No, sir; we are just changing them on the battleships.

Mr. KELLEY. I thought you said the other day you had plenty of 3-inch guns and 3-inch mounts.

Admiral McVAY. Yes; and we are putting them on there.

Mr. KELLEY. They are paid for, too, are they not?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You have here \$1,019,000 for the mounts.

Admiral McVAY. I will tell you what you may have in mind, the fact that we found that those vessels were very much under-battered in comparison with similar vessels that they would probably go up against and we put four more guns on them.

Mr. KELLEY. Of the larger type?

Admiral McVAY. No; 6-inch guns. But we put them in an enclosed mount because the emplacements have to be so located that

The blast interference would make them untenable; so we have made a special hood inclosing the whole mount, so that when a gun is fired the blast would not knock out the members of the crew. That, I think, is what you meant. They are the same kind of guns.

AMOUNT TO BE EXPENDED ON DESTROYERS.

Mr. KELLEY. Under destroyers it appears that you are going to buy \$22,293,112 worth of torpedo outfits. Over how many years would you probably figure on spreading that?

Admiral McVAY. Between four and five years in our plants alone, but by giving contracts to the Bliss people it would be a much shorter time.

Mr. KELLEY. What is the capacity of the Alexandria plant?

Admiral McVAY. About 175 a year.

Mr. KELLEY. That was a war plant. Are you figuring on closing it?

Admiral McVAY. No, sir.

Mr. KELLEY. You intend to keep that going?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Why not close it down?

Admiral McVAY. I do not think it is wise to close any of the plants under the shortage.

Mr. KELLEY. In the matter of making torpedoes?

Admiral McVAY. Yes, sir; I think it would be quite wrong.

Mr. KELLEY. The only thing that is left in our inquiry is with reference to the completed material on hand, and the possibility of transfer from one to another?

Admiral McVAY. We do that all the time.

Mr. KELLEY. You are not going forward with the fabrication of any material for vessels that are not to be finished?

Admiral McVAY. It is all suspended, except a very few minor items.

Mr. KELLEY. Items which you can use for some other ships?

Admiral McVAY. Yes, sir; where it would cost us as much or more to stop as to go ahead.

Mr. KELLEY. Such exceptions as exist to the rule you have laid down are specified in this table, practically?

Admiral McVAY. Yes, sir.

FRIDAY, MARCH 17, 1922.

HYDROGRAPHIC OFFICE.

STATEMENTS OF CAPT. FREDERIC B. BASSETT, JR., HYDROGRAPHER OF THE NAVY, AND MR. A. F. BOGUE, CIVILIAN ASSISTANT.

SALARIES.

Mr. KELLEY. We have with us Captain Bassett, head of the Hydrographic Office of the Navy Department, and Mr. Bogue, his assistant. We have here the salaries of the Hydrographic Office. Are any increases in salaries suggested or increases in the number of employees?

Captain BASSETT. There are no increases in the statutory roll in the temporary roll; in fact, the estimate for next year in every case is less than or the same as for last year.

Mr. KELLEY. You have reduced the number in one case from 1 to 7?

Captain BASSETT. Yes, sir.

Mr. KELLEY. You take out one at \$900?

Captain BASSETT. Yes, sir; two at \$1,000 each and two down below at \$900.

Mr. BYRNES. There is a reduction of two at \$1,000 each; one at \$720; two at \$900 each; one at \$800; and two at \$1,000 each?

Captain BASSETT. Yes, sir.

Mr. KELLEY. You are doing very nicely; there are no increases and those are to come out.

Captain BASSETT. That is the way it stands, and the total is \$109,540 for the statutory roll, plus \$109,490 for the temporary roll.

Mr. KELLEY. Let us take the statutory force first. You are asking for how many?

Captain BASSETT. Our preliminary estimate was \$120,760, which was the same as for last year, but that was reduced 5 per cent in the direction of the department at the instance of the Bureau of the Budget, and it stands now at \$109,540.

Mr. KELLEY. That is the permanent roll?

Captain BASSETT. Yes, sir.

Mr. KELLEY. Those are all right and we could not change them if we wanted to, because that is fixed by law and we do not make any new law. What about the lump-sum roll?

Captain BASSETT. Our preliminary estimate to the department was \$110,000, but the final estimate is \$109,490. Last year we had \$110,000, so it is less in this case than it was last year. That was also reduced by 5 per cent.

Mr. BYRNES. Was it not \$111,000 last year?

Captain BASSETT. No, sir; \$110,000.

Mr. BOGUE. The appropriation was \$110,000, but for the actual number of people when we made it up it was \$111,250.

Mr. KELLEY. The employees on the temporary roll were taken during the war, and we supposed that when the war was over they would be discontinued. What is the need of keeping them now?

DUTIES OF OFFICE.

Captain BASSETT. The work of the Hydrographic Office is dependent in a very small degree only on the size of the Navy. In a few words, the Hydrographic Office exists by act of Congress, and it is to supply charts and nautical books primarily to the Navy; that is the original organic act of 1837. I think; subsequently, to fill the wants of merchant shipping—which has no way of producing its own charts—Congress directed that the Hydrographic Office supply to the merchant ships, "at the cost of printing and paper," the necessary charts and nautical books, so that the function of the Hydrographic Office is twofold, primarily to provide the Navy with charts and nautical books, sailing directions, pilot charts, etc., for use in time of peace and in time of war, and, secondarily, to provide these same publications to the merchant marine. In time of war, of course, it

manifestly essential that the control of such activities should be under the Navy Department; that is, the supply of charts, nautical publications, etc., as many of these are confidential, and they should not be published by anyone else. As regards the merchant marine, they have no other way of getting charts through United States sources except from the Hydrographic Office, or its agents, although for our own coasts they can get charts from the Coast and Geodetic Survey.

Mr. KELLEY. Do you furnish these charts free?

Captain BASSETT. No; we furnish them at the cost of printing and paper—charts and nautical books.

Mr. KELLEY. But you do not charge anything for the force?

Captain BASSETT. No, sir; the overhead must be maintained in any case. It makes very little difference whether we print 100 or 200 copies of a chart, the cost is very little, and we get enough in, and turn into the Treasury enough, to pay for the printing and the paper, which is all Congress required in this matter.

Mr. KELLEY. Why do you need to have more employees unless you make charts that you would not make for the Navy?

Captain BASSETT. The point is, in the first place, that out of a force of 173 in my office only 23 are clerical, the others being all technical men. We are at work, first, on producing charts from our own surveys, and, second, the reproduction of charts prepared by foreign Governments. Every Government sends to our Hydrographic Office two copies of every new chart it produces, and we, in turn, do the same to all Governments that reciprocate.

Mr. KELLEY. Suppose we did not furnish charts to the merchant service, how much of this temporary force could you do away with?

Captain BASSETT. It makes no difference, because the charts have to be prepared anyway.

Mr. KELLEY. Tell us what work you are doing that you did not do before the war.

Captain BASSETT. I will have to go into a little detail in order to tell you what the principal work is. The Hydrographic Office issues to naval vessels charts printed from 4,344 copper or zinc plates.

Mr. KELLEY. Would all of those be needed for the Navy Department?

Captain BASSETT. Yes, sir; every one of them.

Mr. KELLEY. How did you get along before the war when you did not have your temporary roll?

Captain BASSETT. We have just started in recent years the reproduction of foreign charts—that is to say, we get a paper chart from the British hydrographic office, we will say, and we take that chart and make corrections up to date and photograph it on zinc plates, our idea being ultimate independence of Great Britain in the production of charts. At the present time we are dependent on Great Britain for charts printed from 1,109 plates.

Mr. KELLEY. Where are these locations?

DEPENDENCY ON GREAT BRITAIN FOR CHARTS.

Captain BASSETT. I have here in my hands a chart which shows graphically our dependence on Great Britain for charts from all over the world. The percentages are as follows: Australian waters, 5 per cent; Sweden, Norway, Denmark, Germany, Holland, France,

Spain, Portugal, and the British Isles, 74.5 per cent; Mediterranean Sea, 66.5 per cent; Africa and African waters, 28.5 per cent; In Arabia, and the Indian Ocean, 27.8 per cent.

Mr. KELLEY. It is not your idea, Captain, to set up a hydrographic office here which would make original surveys all over the world?

Captain BASSETT. No, sir. We do not anticipate making all original surveys, but we hope by photographic processes to reproduce all the charts in the world, making our own plates, then keep them up to date, so we will be independent of every country's charts.

Mr. KELLEY. So you will always have to depend on the British or somebody else for charts?

Captain BASSETT. But we will not be dependent on them if we make the plates ourselves. Within recent years there has been developed the process of photozincography. You take a photographic paper chart such as sent us by foreign hydrographic offices on a glass plate; then that glass plate is coated with asphaltum and men call them "negative cutters" go over all the outlines and trace them, because some of the charts we get from Great Britain and other countries are not as clear as they should be and do not photograph well, so they have to be recut. When these are recut and are all ready they are photographed by a special process on a thin zinc plate, and on that zinc plate we have a positive—not a negative, but a positive—on which we subsequently print our charts of that particular area. This can be made by that process, which was only perfected in 1913. It prints an hour, whereas by the old copper-plate process you can only print about 80 a day, because a flat copper plate has to be in every time a print is made, then cleaned off, then inked again before making another impression, etc.

Our object is to make ourselves independent of the British Government or any foreign government in case the supply of charts is denied us. We did have trouble in getting charts from England during the war, and we would not have gotten them at all if we had not been associated with them. In one instance during the World War we had long delay in delivery of charts from British sources.

Mr. KELLEY. That is, they did not furnish them in sufficient numbers so that you could supply your service?

Captain BASSETT. They could not furnish them in sufficient number.

Mr. KELLEY. So you find you are obliged to have their charts and make reproductions from them?

Captain BASSETT. Yes, sir.

Mr. KELLEY. Would it not be feasible to enter into some arrangement with Great Britain whereby they would supply you with the charts of the kind they make?

Captain BASSETT. That would be all right in time of peace, but in time of trouble you would not be able to get them.

Mr. KELLEY. Then you would have to build up your department in time of trouble to make reproductions?

Captain BASSETT. Yes; and it would be impossible.

Mr. KELLEY. Why?

Captain BASSETT. Because it will be a matter of seven or eight years, it has been figured by our experts, before we can reproduce the present 1,109 charts that we are now obliged to purchase:

tish sources. We also got very far behind during the war through fault of our own, and there are many corrections that have to be made on our own plates. There have been changes in lights, changes in the depths of water, and everything of that kind, and during the war it was impossible to keep up to date as the information did not come in, so that now we are flooded with post-war work, and we have to do what we can do to keep our present plates up to date without making new reproductions. Furthermore, it is impossible to obtain competent men at the wages paid. A large lump sum would not help without a raise in salaries.

Mr. KELLEY. How do you correct your charts?

Captain BASSETT. We have a correspondence with over 5,000 mariners. In my office now we have a card index of 5,000 mariners who are periodically sending us nautical information.

Mr. KELLEY. I get the idea. Our ships which are out all over the world make a report to you whenever they find a chart in error?

Captain BASSETT. Yes; by our own mariners, also by foreign mariners. When information is obtained in this way it is immediately reported to us and we issue it the same day, being sent out as a Daily Memorandum, and we follow that up every Wednesday with a Weekly Bulletin, and every Saturday we get out what is known as a Notice to Mariners, and this notice is by all odds a most valuable asset to the maritime world.

FEE CHARGED FOR CHARTS TO MERCHANT MARINE.

Mr. KELLEY. Could you not sell these charts to the Shipping Board for the private shipping interests for enough to cover a reasonable cost of reproduction?

Captain BASSETT. As a matter of fact, we are charging—

Mr. KELLEY (interposing). Suppose you did not have them for sale, where would the International Mercantile Co. get its charts?

Captain BASSETT. Either they would have to be produced by us or the company would have to buy them from the British.

Mr. KELLEY. Why do you not charge them a reasonable price which would cover the cost of reproduction?

Mr. BOGUE. We do sell them.

Mr. KELLEY. But only at the cost of printing and paper.

Mr. BOGUE. That is the law, and we sell none over 70 cents while the British charge over a dollar. They have just raised their prices.

Mr. KELLEY. Why can you not make this thing self-supporting if it is a good thing and if it is needed by all the merchant marine?

Captain BASSETT. If the merchant marine bill passes the demand for charts will be enormous.

Secretary DENBY. It is about on a par with the lightships, and you do not want to make the merchant marine pay for the lightships.

Mr. KELLEY. If we could cut off a lot of these things which are a considerable naval burden—

Mr. BYRNES (interposing). It would make a considerable reduction in the bill.

Mr. KELLEY. And I think that would be a good thing to do.

Mr. BYRNES. The act was simply passed to aid the merchant marine in the same way by giving them these charts.

Captain BASSETT. But if you aid the merchant marine you are aiding the Nation.

Mr. BYRNES. I am not discussing that; I am stating what was evidently the object, and not discussing the merits of the thing.

Captain BASSETT. Our charts do not cost more than half what British charts cost at the present time, but I want to particularly emphasize the fact that we are dependent on Great Britain for our charts, and that the force we now have is barely able to keep pace with the work of correcting the charts, and when I say "correct the charts" I mean correcting the plates. There is a tremendous amount of work connected with the correction of these plates from the information we receive from all parts of the world. I looked at a chart yesterday that was in its fifty-second edition; that means the plate had been corrected and the old paper prints made from it destroyed or canceled 52 times. If I remember correctly, it was a chart of the West Indies, where we have a great many changes all the time. One chart is in its one hundred and thirty-ninth edition. I could talk a long time on this point, but I do not want to detain the committee any longer than necessary. However, I would like to make a few remarks in general about chart correction.

CHARTS MADE BY COAST AND GEODETIC SURVEY.

Mr. KELLEY. Before you go into that, let me ask you this question: Is anybody else making this kind of chart in our Government?

Captain BASSETT. By law the Coast and Geodetic Survey makes all the charts for the United States waters and for the United States foreign possessions.

Mr. KELLEY. And you get your charts from them?

Captain BASSETT. We get charts from 642 plates from them.

Mr. KELLEY. You do not duplicate anything our own Government is doing?

Captain BASSETT. No, sir.

Mr. KELLEY. Outside the 3-mile limit is really where your work begins?

Captain BASSETT. Yes, sir; and we have the foreign countries well.

Mr. KELLEY. I say, outside the 3-mile limit.

Captain BASSETT. Yes, sir; that is correct. May I add some figures? In the Hydrographic Office we have our own chart plates the number of 2,593; we buy from British sources and supply naval vessels 1,109 charts, and we get for naval vessels, free of charge, charts from 642 plates from the Coast and Geodetic Survey making a total of charts from 4,344 plates.

REDUCTION OF STATUTORY ROLL.

Mr. KELLEY. In 1919 you spent about \$190,000 for what you now asking \$109,000, so you are coming down some, are you? You are evidently reducing your force or reducing the pay.

Mr. BYRNES. As a matter of fact, he has reduced it below the appropriation for 1915.

Mr. BOGUE. The statutory roll has been greatly reduced, while the other roll has been increased to a certain extent. This year we are dropping off 12 positions; in other words, we are losing 12 people in the lower grades. It was not conceded that the office should red

it it was done on account of the 5 per cent cut being required by the Budget Bureau.

Mr. BYRNES. You have increased your lump-sum roll?

Mr. BOGUE. No; it is reduced over last year.

Captain BASSETT. All of our appropriations are reduced this year.

Mr. KELLEY. Are you reducing the number of employees or the pay?

Captain BASSETT. We are reducing the number by 12.

Mr. KELLEY. That reduction is made in the statutory roll?

Captain BASSETT. Yes, sir; the lump-sum roll will be approximately the same next year.

Mr. KELLEY. You want the same number of men and at the same pay?

Mr. BOGUE. Yes, sir. It might be added that the pay is not commensurate with the character of work. We can not now get men of a proper caliber for that pay. That is one of our worst difficulties. The Coast and Geodetic Survey does similar work and the pay of their employees averages much higher.

Captain BASSETT. At the proper time I would like to read a short letter relating to increases in the salaries in the Hydrographic Office and insert it in the record.

Mr. BOGUE. In connection with your inquiry a little while ago, why we would not cut the force down, you must bear in mind that we have 4,600 charts on issue; about 1,109 of those are British charts, and we must make reproductions of them to issue to our Navy. As we well know, our Navy cruises all over the world and not only on our own coasts. The demand for charts on our office is from six to ten times greater than any prewar demand.

Mr. KELLEY. Suppose we put a price on these charts which would include the overhead; you could sell them just the same, could you not?

Mr. BOGUE. There is another feature that should be considered. The Navy must have the charts, and it costs considerable to make steel plates for the charts. For example, if you make a survey, it costs from \$50,000 to \$100,000 for the data for perhaps one chart, but when you once have the chart plate for the Navy there is very little expense for printing; it is merely a matter of putting it on the press when you can and running off one or a dozen in 10 or 15 minutes, and the additional cost is for the paper only, which averages about 5 cents per chart.

LETTERS RECOMMENDING INCREASES IN SALARIES.

Mr. KELLEY. Captain, I believe you wanted to put a statement in the record.

Captain BASSETT. It is a letter from the Hydrographic Office to the Secretary of the Navy recommending an increase of salaries. I would like to introduce it. It bears the approval of the Bureau of Navigation and of the Secretary of the Navy, and there accompanies a letter from the Director of the Budget Bureau.

(The papers referred to follow:)

DECEMBER 9, 1921.

cc: Secretary of the Navy.

cc: Bureau of Navigation and Budget officer for Navy Department.

Subject: Pay of employees in the Hydrographic Office, United States Coast and Geodetic Survey, and United States Geological Survey.

Reference: The Budget for the service of the fiscal year ending June 30
Inclosure: (A) Supplementary report for Hydrographic Office made in accordance with salaries allowed similar positions in the Coast and Geodetic Survey and Geological Survey.

1. With the publication of the Budget, it has come to the attention of the hydrographer that the present discrepancies in pay between employees of the Hydrographic Office and in the Coast and Geodetic Survey and the Geological Survey doing similar work will not only be continued but will be increased.

2. In 1920 the hydrographer recommended increases to bring the salaries of the employees of the Hydrographic Office up to those of the employees of the departments of the Government doing the same work. These increases were admitted to be only fair, but were denied on the ground of economy.

Again in 1921 the hydrographer submitted estimates to include increases to bring the pay of the employees of the Hydrographic Office up to that of the Coast and Geodetic Survey and Geological Survey. He was directed to submit estimates equal to those of the previous year, and then to cut them 5 per cent. This was done and the estimates of the Hydrographic Office were reduced accordingly. Meanwhile, in two other departments, Interior and Commerce, the Geological Survey and the Coast and Geodetic Survey not only maintained their previous increases but have obtained approval of estimates to carry further increases over their previous salaries, which were already higher than the present salaries paid for similar work by the Hydrographic Office.

3. To indicate clearly the injustice being done to the employees of the Hydrographic Office, the following tables taken from the Budget are submitted. These tables, for the sake of brevity only, include a section of the employees, and reference to the Budget will show that these tables are typical of the salary list of the three institutions.

Department of Commerce, Coast and Geodetic Survey.	Department of the Interior, Geological Survey.	Department of the Navy, Hydrographic Office
Cartographers: 1, at \$5,040; 2, at \$4,750; 1, at \$4,500.	1 chief topographic engineer, at \$5,000; 1 division topographic engineer, at \$4,500.	Technical aide, at \$2,400; sections (technical), at \$1,800.
Associate cartographers: 2, at \$3,800; 3, at \$3,600; 3, at \$3,300.	2 cartographers, at \$3,600; 5 assistant cartographers, at \$3,000.	Draftsmen: 1, at \$2,000; \$1,800; 5, at \$1,600; 8, at \$1,400; 4, at \$1,200.
Assistant cartographers: 2, at \$3,000; 3, at \$2,750; 3, at \$2,500; 3, at \$2,250; 3, at \$2,000.	4 junior cartographers, at \$2,400; 1 junior topographic engineer, at \$2,040; 4 cartographic draftsmen, at \$2,040.	1 hydrographic surveyor, at \$1,400.
Junior cartographers: 4, at \$1,800.	1 copyist topographic draftsman, at \$1,800; 2 copyist draftsmen, at \$1,680.	NOTE.—3, at \$1,000, at \$900, omitted.
NOTE.—Replaces 2 topographic and hydrographic draftsmen, at \$2,000; 3, at \$2,460; 6, at \$2,260; 6, at \$2,060; 3, at \$1,800; 6, at \$1,600; 6, at \$1,400; 2, at \$1,200; and 2 copyist draftsmen, at \$1,200, omitted.		3 apprentice draftsmen, at \$800, omitted.
Chief chart corrector, at \$1,800.		1 draftsman, at \$1,800.
4 chart correctors, at \$1,440.		7 draftsmen, at \$1,000.
NOTE.—In lieu of 1 clerk, at \$1,200; 2 topographic and hydrographic draftsmen, at \$1,200; and 2 copyist draftsmen, at \$1,200.		
Copperplate engravers: 1 chief engraver, at \$3,000; 3 senior copperplate engravers, at \$2,880; 3, at \$2,760; and 3, at \$2,640; 3 master copperplate engravers, at \$2,400; and 3, at \$2,160; 2 apprentice copperplate engravers, at not exceeding \$1,200.		Engravers: Chief, at \$2,000; 3, at \$1,600; 1, at \$1,200.
NOTE.—Replaces 1 copperplate engraver, at \$2,500; 2, at \$2,100; 3, at \$2,200; 3, at \$2,000; 2, at \$1,800; 2, at \$1,600; 3, at \$1,400; and engravers and apprentices at not exceeding \$1,000 omitted.		NOTE.—2, at \$1,000, at \$720, omitted.
		Apprentice engravers: 1, at \$700.
		Plate printers: Chief, at \$1,200; 1, at \$1,000.
		NOTE.—2, at \$900, at \$800, omitted.
		Apprentice plate printer \$700; 1, at \$600.
		Lithographers: Chief, at \$1,000.
		NOTE.—2, at \$1,000, at \$800, omitted.

4. The total increase of the appropriation for the United States Coast and Geodetic Survey is approximately \$500,000, much of which is absorbed in increased salaries for the cartographic branch of

ast and Geodetic Survey. In the last few years the other branches the Coast and Geodetic Survey, corresponding to the hydrographic engineer, expert aide, and nautical experts of the Hydrographic Office, have already secured not only a handsome increase in pay but retired list and assimilated rank of commissioned officers of the United States Navy. So, with the passage of this present budget, the entire force of the Coast and Geodetic Survey will be paid approximately double that of similar ratings of the Hydrographic Office. The increase approved for the Coast and Geodetic Survey is greater than the entire present appropriation for the Hydrographic Office.

5. At the present moment, it would be to the financial advantage the oldest and best paid technical men in the Hydrographic Office resign and enter the Coast and Geodetic Survey, for in a short while they would undoubtedly be getting more pay than in their present positions in the Hydrographic Office and have the prospect of promotion to positions with possibly twice the pay they are now receiving.

6. The only hold the Hydrographic Office has on these men is their sense of loyalty and pride in an institution they have done much to create. The Hydrographer has appealed to this loyalty and pride to hold the office together, but unless conditions are changed it seems impossible to prevent a great number of the engravers and draftsmen making transfer to other departments. If they go it will be impossible to fill their places, and will practically stop chart production in this office.

7. When the representative of the Budget Office visited the Hydrographic Office, inspected its work, saw the caliber of the employees, and was told and heard something of the history of the office and its additions, he remarked to the Hydrographer that he had come prepared to cut, but after a thorough investigation he was ready to commend an increase, not only to carry on the present work, but to enable the office to become independent of foreign hydrographic offices.

8. In view of the serious conditions outlined in this letter, I believe it to be my duty to bring them to the attention of the department, for unless they are remedied it will be almost impossible for the Hydrographic Office to continue to function. I therefore request that, under the authority given by Executive order No. 3578, of November 8, 1921, to the Director of the Bureau of the Budget "to revise, reduce, or increase the estimates of the departments or establishments as submitted," he be requested to substitute the accompanying estimate for the Hydrographic Office for the fiscal year 1923 for the estimates previously submitted.

The estimates submitted herewith are based upon the present number of positions in the Hydrographic Office, tentatively classified in accordance with House bill No. 2921, known as the Wood bill.

The salaries carried in this estimate are much less than salaries provided for similar work in the Coast Survey and Geological Survey. The Hydrographer is unwilling to admit the justice of the maining inequity in salaries, but submits this estimate in the hope of affording immediate temporary relief to the employees of the office and its branches and leaves the final rectification of all inequalities in pay to any reclassification that is determined upon by the Congress.

L. R. DE STEIGUER.

Salaries, Hydrographic Office, submitted in lieu of estimates as appear on pages 307 and 308 of Budget for 1923, based on tentative classification, as per House bill No. 2921, April 21, 1921, known as the Wood bill.

Employees.	Rate per annum.	Estimated, 1923.	Present force.	
			Estimated, 1922.	Rate per annum.
Hydrographic engineer.....	\$4,740	1	1	\$4,740
Cartographers.....	4,500	1	1	4,500
Do.....	3,960	1	1	3,960
Do.....	3,600	2	1	3,600
Do.....	3,000	1	1	3,000
Associate cartographers.....	2,580	2	1	2,580
Do.....	2,460	11	9	2,460
Do.....	2,460	11	9	2,460
Assistant cartographers.....	1,860	12	3	1,860
Do.....	1,860	12	9	1,860
Junior cartographers.....	1,680	5	3	1,680
Do.....	1,680	5	2	1,680
Chief engraver.....	3,000	1	1	3,000
Senior copperplate engraver.....	2,580	2	2	2,580
Do.....	2,460	4	2	2,460
Do.....	2,460	4	2	2,460
Master copperplate engraver.....	2,040	2	2	2,040
Do.....	1,860	2	1	1,860
Do.....	1,860	2	1	1,860
Junior copperplate engraver.....	1,620	1	1	1,620
Do.....	1,500	3	1	1,500
Do.....	1,500	3	2	1,500
Apprentice copperplate engraver.....	1,140	1	1	1,140
Do.....	1,080	1	1	1,080
Do.....	900	1	1	900
Chief lithographer.....	3,000	1	1	3,000
Lithographic draftsmen.....	2,520	1	1	2,520
Do.....	2,160	3	4	2,160
Do.....	1,800	2	1	1,800
Do.....	1,680	2	1	1,680
Do.....	1,680	2	1	1,680
Apprentice lithographic draftsman.....	960	1	1	960
Foreman lithographic draftsman.....	2,400	1	1	2,400
Foreman plate printer.....	2,400	1	1	2,400
Foreman lithographic transferrer.....	2,100	1	1	2,100
Lithographic transferrers.....	1,860	4	3	1,860
Do.....	1,860	4	1	1,860
Lithographic pressmen.....	1,860	4	4	1,860
Do.....	1,800	1	1	1,800
Plate printers.....	1,800	2	2	1,800
Do.....	1,680	2	2	1,680
Map printers.....	1,800	2	2	1,800
Do.....	1,500	1	1	1,500
Lithographers.....	1,500	2	2	1,500
Plate printers.....	1,320	3	1	1,320
Do.....	1,320	3	2	1,320
Press feeders.....	1,200	2	2	1,200
Apprentice plate printers.....	900	2	1	900
Do.....	900	2	1	900
Apprentice lithographer.....	1,080	1	1	1,080
Electrotypist.....	1,860	1	1	1,860
Chief photographer.....	2,160	1	1	2,160
Process photographer.....	1,800	1	1	1,800
Photo printer.....	1,800	1	1	1,800
Negative cutters.....	1,680	3	1	1,680
Do.....	1,680	3	2	1,680
Nautical engineers.....	3,960	2	1	3,960
Do.....	3,000	2	2	3,000
Do.....	2,460	3	1	2,460
Do.....	2,460	3	2	2,460
Do.....	2,100	3	1	2,100
Do.....	1,960	5	3	1,960
Do.....	1,960	5	3	1,960
Translator.....	1,860	1	1	1,860
Do.....	1,500	1	1	1,500
Chart correctors.....	1,680	1	3	1,680
Do.....	1,440	5	3	1,440
Do.....	1,320	6	1	1,320
Do.....	960	2	2	960
Chief clerk.....	2,700	1	1	2,700

Salaries. Hydrographic Office, submitted in lieu of estimates as appear on pages 307 and 308 for 1923, etc.—Continued.

Employees.	Rate per annum.	Estimated, 1923.	Present force.	
			Estimated, 1922.	Rate per annum.
Senior clerk.....	\$2,100	1	1	\$1,800
Clerks.....	1,980	2	2	1,600
Do.....	1,680	2	3	1,400
Do.....	1,620	2		
Do.....	1,500	2		
Do.....	1,440	6	3	1,200
Do.....	1,380	2	6	1,200
Do.....	1,320	3	4	1,100
Do.....	1,200	2		
Seaman laborer.....	1,200	1	3	900
Stewards.....	1,140	5	1	840
Passenger.....	1,140	1	6	800
Laborers.....	1,080	5	3	720
Do.....	1,020	2	5	660
Do.....	900	5	3	660
Do.....			1	660
Total.....	316,920	173	173	230,050
Present bonus, \$240 each.....				41,040
Total.....				271,090

Net increase, \$45,830 (16 per cent).

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., December 14, 1921.

From: Bureau of Navigation.

To: Secretary of the Navy.

Via: Budget Officer of the Navy Department.

Subject: Pay of employees in the Hydrographic Office, United States Coast and Geodetic Survey and United States Geological Survey.

Reference: The Budget for the service of the fiscal year ending June 30, 1923.

Enclosure: Supplementary report for Hydrographic Office made in accordance with salaries allowed similar positions in the Coast and Geodetic Survey and Geological Survey.

1. The bureau feels that the facts set forth herein relating to the low rate of pay of employees of the Hydrographic Office merits immediate attention of the department and of the Bureau of the Budget.

2. The salaries are not only inadequate as pay for employees who perform the character and quality of work required, but they are out of all proportion to the salaries paid employees who perform similar work in the Coast and Geodetic Survey and the Geological Survey.

3. The bureau recommends that the department request that under the authority given by Executive Order No. 3578 of November 8, 1921, to the Director of the Budget, he be requested to substitute the estimates recommended herein for the Hydrographic Office for the fiscal year 1923 in place of those previously submitted.

4. The Bureau of Navigation considers this recommendation as not only necessary but urgent.

THOMAS WASHINGTON.

DECEMBER 20, 1921.

From: Budget officer, Navy department.

To: Secretary of the Navy.

Subject: Pay of employees in the Hydrographic Office, the United States Coast and Geodetic Survey, and the United States Geological Survey.

1. Forwarded, approving the recommendation of the hydrographer and the chief of the Bureau of Navigation that revised estimates for salaries in the Hydrographic Office be forwarded to the Director of the Budget with the re-

quest that they be substituted for the estimates now appearing in the Budget for 1923. A letter addressed to the Director of the Budget for your signature, carrying out this recommendation, is attached hereto.

R. E. COOZE.

THE SECRETARY OF THE NAVY.

Washington, December 19, 1921.

SIR: There are submitted herewith revised estimates of the Hydrographic Office for the fiscal year ending June 30, 1923, which I strongly recommend be substituted for the estimates of that office now appearing in the Budget, pages 90, 91, and 92.

In the estimates for the fiscal year ending June 30, 1923, originally submitted to me by the Hydrographer, increases were provided for the employees in accordance with the salaries recommended by the Bureau of Efficiency, and substantially as given in House bill 2921, Sixty-seventh Congress, first session, known as the Wood bill. These increases, which, if granted, would have provided smaller salaries for Hydrographic Office employees than those paid employees of the United States Geological Survey, and the United States Coast Survey doing work of a similar character. I was constrained to refuse on the grounds of economy and in the belief that other departments would deal likewise with their employees.

It appears, from an examination of the Budget for the fiscal year ending June 30, 1923, that employees of the Coast and Geodetic Survey (pp. 723-724), and employees of the Geological Survey (pp. 644-650) not only retained their previous increases but secured the approval of their departments and the Bureau of the Budget for further increases.

As a result the highest paid of the technical employees in the Hydrographic Office get a little more than the lowest salaries paid by the two other bureaus doing similar work in the District of Columbia.

The Hydrographic Office is an institution over 75 years old, whose nautical charts and publications have a well-deserved and world-wide reputation for accuracy and usefulness. The employees, who have done much to build up the office, have grown up in its service and have endured their previous inequalities in pay partly on account of their loyalty to the Navy Department and partly in the belief that, eventually, justice would be done them. I do not believe, in justice to the employees of the Hydrographic Office and in the interest of the efficiency of that office, that the removal of this inequality should be longer deferred. I, therefore, request that, in accordance with the authority granted in Executive Order No. 3578, the estimates submitted herewith be substituted for the estimates given on pages 90, 91, and 92 of the Budget for the Hydrographic Office. I believe the submission of these revised estimates to be in the public interest within the meaning of section 203(a) of the budget and accounting act, 1921.

I also inclose herewith the letter of the Hydrographer, under date of December 9, with comments thereon by the Chief of the Bureau of Navigation and the Budget officer of the Navy Department in further explanation of these estimates.

Respectfully,

EDWIN DENBY.

THE DIRECTOR OF THE BUREAU OF THE BUDGET.

Washington, D. C.

Inclosures.

TREASURY DEPARTMENT.

BUREAU OF THE BUDGET.

Washington, March 2, 1922.

The honorable the SECRETARY OF THE NAVY.

SIR: Referring to your letter of December 23, 1921, with inclosures, concerning increase in salary for the Hydrographic Office, I have had an investigation of this subject made for the purpose of determining the justice of your request, and find that we would be justified in recommending the increases requested for salaries in the Hydrographic Office if such increases were in order.

However, since the submission of the Budget for 1923 Congress has committed itself to a policy of granting no increases in salaries, even if recom-

ded by this office, pending action upon reclassification measures now before Congress; and the bill for the Department of Commerce and Labor for the 1 year 1923, as reported to the House of Representatives by the House Appropriations Committee on February 22, makes provision for salaries in Coast and Geodetic Survey on exactly the same basis as the present ones.

seems unwise, therefore, to submit at this time your request for increase of salaries for the Hydrographic Office, even though we are convinced that an increase is justified.

Very sincerely yours,

CHARLES G. DAWES.

Director of the Bureau of the Budget.

CONTINGENT AND MISCELLANEOUS.

Mr. KELLEY. The next item is, "Contingent and miscellaneous expenses." This year you have \$112,000. How much are you asking for this item for next year?

Captain BASSETT. \$110,000.

Mr. KELLEY. What about the money that you get from the sale of charts?

Captain BASSETT. It is turned into the Treasury.

Mr. KELLEY. You do not have a revolving fund?

Captain BASSETT. No, sir; the first of last July that was stopped by an act of Congress.

Mr. KELLEY. Can you put in the record a little table showing how the \$110,000 is to be applied?

Captain BASSETT. Yes, sir; I have that right here.

Mr. KELLEY. Please insert it in the record.

Captain BASSETT. Yes, sir.

Objects of expenditure, estimated, 1923.

Purchase of copper plates, chart paper, etc.....	\$90,000
Charts, instruments, etc.....	5,000
Production of charts by photography.....	3,000
Lithographing charts.....	3,000
and repair of printing presses, furniture, etc.....	3,000
Distilling.....	500
Grams.....	500
Charts.....	4,000
Miscellaneous.....	1,000
Total.....	110,000

Mr. KELLEY. The big item is the purchase of copper plates, chart paper, etc.?

Captain BASSETT. Yes, sir.

RECEIPTS FROM SALE OF CHARTS FOR VARIOUS YEARS FROM 1909 TO 1921.

Mr. KELLEY. Have you the sales of charts of last year?

Mr. BOGUE. The number of charts sold by years was as follows: 1909, 18,000; in 1912, 24,000; in 1918, 111,000; in 1919, 178,000; in 1920, 245,000. This year the receipts will probably fall off a little, because the merchant marine is tied up in the harbors.

Mr. KELLEY. Mr. French wants to know about the cash receipts in 1919 and 1920?

Mr. BOGUE. In 1920 the cash receipts turned into the Treasury for the sale of charts and nautical books amounted to \$108,474.93, and in 1921 they dropped off to \$61,392.

Mr. KELLEY. What was the reason?

Mr. BOGUE. There was a gradual falling off after the war. In 1919 it was \$77,863.68.

Mr. KELLEY. And how much in 1909?

Mr. BOGUE. Less than \$10,000.

Mr. KELLEY. When you did not have the extra men.

Mr. BOGUE. That shows that the merchant marine needs the Hydrographic Office charts.

CONTINGENT EXPENSES, BRANCH HYDROGRAPHIC OFFICES.

Mr. KELLEY. For "Contingent expenses, branch hydrographic offices," you had last year \$15,000. How much are you asking for the next fiscal year?

Mr. BOGUE. \$15,000. This is for miscellaneous expenses for 15 different branch offices. Rent takes over one-third of it—\$5,157.50.

Mr. KELLEY. Who occupy the offices?

Captain BASSETT. Naval officers, nautical experts, clerks, and messengers.

Mr. KELLEY. That is \$1,000 an office?

Mr. BOGUE. Yes. That includes rent, stationery, time balls, etc.

Mr. KELLEY. You have had about that amount right along?

Mr. BOGUE. Yes, sir.

ADVANTAGES AND DUTIES OF BRANCH OFFICES.

Mr. FRENCH. What is the advantage of maintaining these separate branch offices?

Captain BASSETT. The mariners get all the latest hydrographic information and the correct time from our offices, and can consult the latest corrected charts and Sailing Directions. Many mariners come in to consult the branch hydrographic offices before they start on their voyages, and they get the very latest information up to the time of sailing. These offices also issue free to observers the pilot charts in exchange for hydrographic information. Wherever the personnel is sufficient, nautical experts are sent to visit vessels to collect the information and to distribute Hydrographic Office periodicals. At the branch offices personal contact is made with the mariner, who is taught to regard the Hydrographic Office as his own institution, to which he can always turn for guidance in nautical matters, and which he should support by reporting hydrographic information.

Secretary DENBY. That is why you have officers?

Captain BASSETT. Yes, sir.

Secretary DENBY. A clerk would not have the information necessary?

Captain BASSETT. No, sir; or the experience necessary to advise mariners. Then we have our agents for charts in a great many cities, which these officers supervise.

Mr. KELLEY. That looks like quite a wastage there to have officers in these stations.

Captain BASSETT. I was just explaining why it was necessary.

Secretary DENBY. It did not appeal to me strongly, but perhaps you have given the real reason.

Captain BASSETT. The branch offices have been established for a great many years. In addition to naval officers there are nautical experts, clerks, and in some cases messengers. They always have in their offices corrected copies of every Hydrographic Office chart. As they say, the mariners come in and get the latest information from the latest Notice to Mariners. One of these Notice to Mariners [indicating] comes out every week, and from this they get all the latest hydrographic information.

Mr. KELLEY. Do you print that?

Captain BASSETT. Yes, sir; over 6,000 copies a week.

Mr. KELLEY. Do you sell it?

Captain BASSETT. No; it is free to mariners.

Secretary DENBY. What information do they get that is not contained in the printed articles?

Captain BASSETT. It may be that a merchant captain has not received this [indicating the Notice to Mariners] and he may be sailing for South America. He can go to a branch hydrographic office and consult this. In addition he can get advice on any matter of navigation or hydrography.

Mr. KELLEY. The question was the need for these naval offices. Why naval officers instead of civilian clerks?

Captain BASSETT. Because the duty is technical, and such that it should be handled by a naval officer. It is purely nautical work. They have all the charts with the latest information for the mariners up to date. They are also charged with seeing that our authorized agents for the sale of our charts in the different cities keep their charts corrected up to date, and that these agents are not selling out-of-date charts to the merchant captain who desires charts for a voyage. They have also the care of the time balls in many of the cities, instruct the Naval Militia and Naval Reserves in navigation, holding navigation classes. These officers also collect nautical information by actually boarding incoming vessels.

Mr. KELLEY. What grade of officer is sent to these places?

Captain BASSETT. In New York we have a captain. In the other offices they are not higher than lieutenant commander or commander. I have not the list of them here.

Mr. KELLEY. Sixteen?

Captain BASSETT. There are officers in charge of 14 offices, a nautical expert in charge at Duluth, and a messenger during the season of navigation at Sault Ste. Marie.

Mr. KELLEY. You go on the Great Lakes for any of these enterprises when the Navy is not there? However, that is a matter of administration.

Captain BASSETT. The Navy, by law, has the surveying of the Canadian shore of the Great Lakes and publishes the charts for our government.

Mr. KELLEY. It is valuable to the mariners?

Captain BASSETT. Yes, sir; they do use the charts. All the charts of the St. Lawrence River from Cornwall, Canada, to the coast are Hydrographic Office charts, and on the Canadian shores of the lakes.

SALARIES AT HYDROGRAPHIC BRANCH OFFICES.

Mr. KELLEY. For services of necessary employees at these places you had \$25,000 and you are asking \$23,700?

Captain BASSETT. \$23,700 is what we ask for.

Mr. KELLEY. It seems to me that these nautical experts would be all that you needed at these places, or if you had an officer there you would not need a nautical expert?

Mr. BOGUE. No. Both are necessary; for \$1,200 you would get a very poor man to disseminate nautical information.

Mr. KELLEY. Let us cut the nautical experts off and put the officers there and do it right.

Secretary DENBY. Could not the clerks employed at these branch offices—

Mr. KELLEY (interposing). These nautical experts are a little above the rank of clerk—they have charge.

Mr. BOGUE. Yes, sir. Three of these were lieutenant commanders during the World War.

LOCATION OF BRANCH OFFICES.

Secretary DENBY. Where are the branch hydrographic offices?

Captain BASSETT. The branch offices are located in Boston, New York, Philadelphia, Baltimore, Norfolk, Savannah, New Orleans, Galveston, San Francisco, Portland, Oreg., Seattle, Duluth, Sault Ste. Marie, Chicago, Cleveland, and Buffalo.

Secretary DENBY. What have you stationed at San Francisco—have you an officer?

Mr. BOGUE. An officer and two nautical experts.

SALARY AND QUALIFICATIONS OF NAUTICAL EXPERTS.

Secretary DENBY. What are the nautical experts paid?

Mr. BOGUE. One \$1,800 and the other \$1,200.

Secretary DENBY. What else have you there?

Mr. BOGUE. That is all.

Secretary DENBY. The nautical experts are clerks?

Mr. BOGUE. No. They are men qualified by sea experience. The \$1,800 man was a Naval Academy graduate of the class of 1886. He has had this position in San Francisco many years.

Secretary DENBY. Are you not unnecessarily complicating and misleading by the use of the words "nautical experts," when most of them are \$1,200 clerks?

Mr. BOGUE. No; nautical experts—men qualified by sea experience for this work—are necessary. All nautical experts thus employed have these qualifications, and they are not \$1,200 clerks.

Secretary DENBY. What nautical experts have you now?

Captain BASSETT. We have not many nautical experts—only a few—one in Philadelphia, one in Chicago, one in Duluth, two in San Francisco, one in Portland, Oreg., and one in Seattle.

Mr. BYRNES. You have three nautical experts at \$1,200 each.

Mr. BOGUE. Yes; one in Chicago, one in Seattle, and one in San Francisco. A man must have had sea experience to qualify for nautical expert at the branch hydrographic offices.

Secretary DENBY. Commissioned rank?

Mr. BOGUE. Not necessarily. A man who has had sea experience chief quartermaster. Experience of this kind is the only way qualify for the position of nautical expert.

Captain BASSETT. They must have been to sea in order to be of any use to us as nautical experts.

Mr. KELLEY. Could not we drop your employees back to where they were in 1920, 1919, 1918, 1917, 1916, and 1915—about \$18,000?

Captain BASSETT. We are crippled now. Our duties at the branch hydrographic offices are increasing all the time. We have begun recently the collection from and distribution to ships at sea of hydrographic information by radio. This is of great assistance to the mariner but entails a great amount of work upon the Hydrographic Office and the branch hydrographic offices.

[I should like the permission of the committee to insert this tabular statement of the work of the branch offices, Mr. Chairman?

Mr. KELLEY. It would take quite a lot of printing and I do not think it would be advisable to insert it.

Secretary DENBY. Reverting to the item "Contingent and miscellaneous expenses," I should like to ask you about the appropriation 1921, \$50,000, and in 1922, \$112,000?

Mr. BOGUE. That is explained by the fact that up to that time we were credited with the receipts from the sales. When the appropriation was \$50,000 we got \$108,000 from sales.

Secretary DENBY. You used the sales money in 1921 and did not use it in 1922?

Mr. BOGUE. Yes, sir.

OCEAN AND LAKE SURVEYS.

Mr. KELLEY. The next item is, on page 30, "Ocean and lake surveys," and for the current year you have \$105,000. How much do you want next year?

Captain BASSETT. We have \$105,000 for this year, but \$15,000 was expended, and we are not touching it, so that leaves \$90,000 for this year. We ask for the same amount for next year.

Mr. KELLEY. How much have you spent this year out of this fund?

Captain BASSETT. We have obligated up to the present time \$75,109, being unobligated about \$14,000, which will be needed for the remainder of this fiscal year.

Mr. KELLEY. This is for work that is done on board the two ships?

Captain BASSETT. No, sir. This is for the purchase and printing of nautical books, and supplies for the hydrographic surveys, in addition to the compensation of the hydrographic surveyors, cartographers, etc., on the U. S. S. *Hannibal* and the shore party in Cuba.

Mr. BOGUE. And is also for the payment of British charts purchased for our ships abroad. We have spent \$16,000 already and will probably require to spend about \$5,000 more, making a total of \$21,000; that is, because we have not the plates for these purchased charts.

SURVEYING ALONG CENTRAL AND SOUTH AMERICAN SHORES.

Mr. KELLEY. You have two ships that cruise about making the surveys?

Captain BASSETT. Only one ship.

Mr. KELLEY. What is it?

Captain BASSETT. The *Hannibal*, making surveys of the east coast of Nicaragua and Honduras.

Mr. KELLEY. Surveying along the Central and South American coasts; they are not up along our own coast?

Secretary DENBY. Down in Honduras.

Mr. KELLEY. They are outside of the United States?

Captain BASSETT. Yes, sir.

Mr. KELLEY. The Coast Survey makes the charts of the United States?

Captain BASSETT. Yes, sir.

Mr. KELLEY. And these are in Central and South America?

Captain BASSETT. Central America.

Mr. KELLEY. Their data is sent up here and this appropriation pays for making the charts?

Captain BASSETT. No, sir. This appropriation pays for the field work, for making the actual surveys in the field. The ship is operated by the Navy Department.

Mr. BOGUE. For signal towers, lumber and canvas for the towers, sounding machines, and instruments to survey, charged to this appropriation, plus civilian surveyors attached to the ship.

Mr. KELLEY. And the draftsmen, etc., are paid out of this fund?

Mr. BOGUE. Yes, sir.

Mr. KELLEY. The charts have to be paid for out of this fund?

Captain BASSETT. No.

Mr. KELLEY. For the payment of services?

Captain BASSETT. For the actual work in the field.

Mr. KELLEY. Including the pay of the necessary hydrographic surveyors attached to the ship *Hannibal*?

Captain BASSETT. Yes, sir.

Mr. KELLEY. The cartographic draftsmen: where are they?

Captain BASSETT. On the ship.

Mr. KELLEY. And the recorders?

Captain BASSETT. They are on the ship.

Mr. KELLEY. And for the purchase and printing of nautical books?

Captain BASSETT. That is entirely separate. The *Sailing Directions*, *Light Lists*, and other nautical publications are printed from this appropriation.

Mr. KELLEY. How much of this appropriation of \$90,000 is for surveying?

TOPOGRAPHIC WORK AT GUANTANAMO.

Captain BASSETT. About \$25,000 for the *Hannibal*, and we also have a shore party at Guantanamo doing topographic work.

Mr. KELLEY. How much does it cost to keep it going?

Captain BASSETT. The estimate for this year for the Guantanamo shore party is \$10,000.

Mr. KELLEY. What can they do on shore with these men?

Captain BASSETT. They are making a topographic survey of Guantanamo, Cuba, and vicinity, connecting it up with the hydrographic work which the Navy has been doing for a number of years.

Mr. BOGUE. This topographic work is in connection with the defenses of Guantanamo.

Captain BASSETT. We are making charts of the whole Cuban coast

PURCHASE AND PRINTING OF NAUTICAL BOOKS.

r. KELLEY. On page 51 you have, "For purchase and printing of nautical books." Why carry it twice? On page 30 you have, "Purchase and printing of nautical books, charts, and sailing directions." Of course, we can cut all of this out but \$35,000?

Captain BASSETT. No, sir; that cuts out \$55,000, which should remain in the bill. We can not cut to \$35,000 and have the Hydrographic Office operate. The \$90,000 must remain in the bill wherever appropriation "Ocean and Lakes surveys," appears.

r. KELLEY. Why separate them?

r. ROGUE. There has been only one case where printing was paid out of the appropriation, "Contingent and miscellaneous expenses, Hydrographic Office."

r. KELLEY. What do you do with the other \$55,000; only \$35,000 for the *Hannibal* and the shore party?

r. ROGUE. For instance, there was \$21,000 for British charts for Navy for the current fiscal year.

r. KELLEY. Why buy them out of this fund?

r. ROGUE. Because there are not sufficient funds in other Hydrographic Office appropriations.

Captain BASSETT. There has been expended for the present fiscal year \$16,000 for charts and nautical books.

r. ROGUE. It has been the practice for many years that if a ship, at Gibraltar, is ordered home via the Philippines, for her to go to a British or a Spanish agent, whoever it may be, and buy the necessary charts, and we do not know about this until we get the bill for purchase.

r. FRENCH. Why is not that cared for on page 51?

Captain BASSETT. The "Contingent and miscellaneous, Hydrographic Office," appropriation is a local administrative appropriation controlled in the Hydrographic Office in Washington. Here it is that appropriation has been in the legislative bill and did not apply to the ships afloat. A large part of the "Ocean and Lakes surveys" appropriation is for the purchase and printing of nautical books.

r. KELLEY. You buy books over there?

Captain BASSETT. Some few are bought abroad, but mostly they come from the Hydrographic Office.

Secretary DENBY. Is it not feasible, Captain, to put that under the heading?

Captain BASSETT. I can see no objection. I have not been here very long but I see no objection to the plan of combining the appropriation now in the Navy bill, "Ocean and Lakes surveys," with the item "Contingent and miscellaneous expenses, Hydrographic Office," in the legislative bill, as both items will now appear in the naval appropriation bill, provided the total appropriation for "Contingent and miscellaneous expenses, Hydrographic Office," is the sum of the two appropriations, viz. \$200,000, and provided thereby we are taking steps which by decisions, etc., might cut us out of our right to this money.

Secretary DENBY. It is illogical where it is. These books come from your central office?

Captain BASSETT. The present appropriation, "Ocean and Lake surveys," is largely for printing; we do not buy many nautical books, since the Hydrographic Office completed its own 58 volumes of the Sailing Directions, or Pilots, of all parts of the world.

Secretary DENBY. From whom do you buy over there?

Captain BASSETT. From the British, Italian, French, or other agents as the case may be, but mainly from the British.

Secretary DENBY. How do the books get there?

Captain BASSETT. The British publish the same books and charts that we do, and vice versa.

Secretary DENBY. Are they the same type of books exactly?

Captain BASSETT. The British publish their charts and nautical books from their latest information, and we do the same from our latest information. Each uses the others charts and books in correcting their own charts and books.

Mr. KELLEY. Then this clause "Ocean and lakes surveys" could be put in some part of the bill with "Contingent and miscellaneous expenses, Hydrographic Office."

Captain BASSETT. I think it would be well to put them in the same place in the bill if the money appropriated remains the same as the sum of the two appropriations under consideration—\$110,000—\$90,000=\$200,000.

Mr. KELLEY. If we cut out the language on page 51, everything will be fixed.

Mr. FRENCH. If we strike out the language on page 30, as the chairman suggests, "for the purchase and printing of nautical books, charts, and sailing directions," and incorporate it in the language on page 51, would the amount carried on page 51 be sufficient? In other words, does the money item amount to \$1,000 or \$1,500, or what?

Mr. BYRNES. Mr. French wants to know whether, if you changed that language, the amount spent for purchasing charts on the exceptional occasions you have described would necessitate an increase of this amount of miscellaneous expense?

Captain BASSETT. The trouble is that there is a misunderstanding here. You are assuming that this would apply only to charts under the conditions that have been mentioned—that is, those purchased by vessels abroad—a small amount—but the last part of the paragraph "Ocean and lake surveys," on page 30, applies to the purchase and printing of all nautical books. The amounts of money shown on page 51, "Contingent and miscellaneous expenses, Hydrographic Office," should in this case be changed from \$110,000 to \$200,000 by adding the \$90,000 which it is proposed to eliminate from page 30.

Mr. KELLEY. Why not consolidate that whole paragraph with the item on page 51? The item on page 30 provides for hydrographic surveys, including the pay of the necessary hydrographic surveyors, cartographic draftsmen, and recorders, and for the purchase and printing of nautical books, charts, and sailing directions. Why not change the heading of the item for "Contingent and Miscellaneous expenses, Hydrographic Office," so as to include those hydrographic surveys and put it all in one paragraph.

Mr. BOGUE. It should include "Ocean and lake surveys."

Mr. KELLEY. Put that in the title, making it include "Ocean and lake surveys."

Captain BASSETT. I see no objection to that, provided that the total amount appropriated for "Contingent and miscellaneous expenses, Hydrographic Office," is made \$200,000. This appropriation "Ocean and lake surveys" is an old one, and I would like to see the same wording preserved if combined with "Contingent and miscellaneous expenses, Hydrographic Office."

MONDAY, MARCH 20, 1922.

NAVAL OBSERVATORY.

STATEMENT OF CAPT. W. D. MACDOUGALL, SUPERINTENDENT.

SALARIES.

Mr. KELLEY. We have with us this afternoon Captain MacDougall, of the Naval Observatory. For the current fiscal year you had 56,400 for salaries and you are asking the same amount for 1923. There are no increases in salaries and not any increases in the number of employees?

Captain MACDOUGALL. No, sir.

Mr. KELLEY. Could there be any decrease?

Captain MACDOUGALL. No, sir.

Mr. KELLEY. Is this about the way it has been running for a long time?

Captain MACDOUGALL. There was a decrease made after the war in order to get down to practically the prewar basis. There are no increases asked for, although I think that those people deserve an increase, and I hope that sometime they may get what they deserve.

Mr. KELLEY. But you are not asking it this year?

Captain MACDOUGALL. No, sir.

CONTINGENT EXPENSES.

FOR MISCELLANEOUS COMPUTATIONS.

Mr. KELLEY. For miscellaneous computations you had for 1922 5,000 and you are asking the same amount for 1923. Those are small items, I suppose, which you can not foresee and they have been the same for years?

Captain MACDOUGALL. Yes, sir.

FOR PROFESSIONAL AND SCIENTIFIC BOOKS, BOOKS OF REFERENCE, PERIODICALS, ENGRAVINGS, ETC.

Mr. KELLEY. For professional and scientific books, books of reference, periodicals, engravings, etc., you had for 1922 \$1,000 and you are asking the same amount for 1923?

Captain MACDOUGALL. Yes, sir.

Mr. KELLEY. That is just to keep up with the procession, I suppose, and get some new things?

Captain MACDOUGALL. Yes, sir. We have a very valuable astronomical and mathematical library there.

Mr. KELLEY. And you have had that amount for quite a while?

Captain MACDOUGALL. Yes, sir.

APPARATUS AND INSTRUMENTS AND REPAIRS TO SAME.

Mr. KELLEY. For apparatus and instruments, and for repairs to the same, you had this year \$2,500 and you are asking \$2,500 for 1923?

Captain MACDOUGALL. It is to be hoped that we have no catastrophes, and if not we will get along all right on that amount.

Mr. KELLEY. Do you have any income from any other source for repairing the instruments and apparatus of other departments? For instance, suppose you should repair some instruments for the Bureau of Aeronautics?

Captain MACDOUGALL. That would come under "Instruments and supplies," in the naval bill. We have a shop there where we do work of that kind but that would not apply to this. Apparatus and instruments was previously in the legislative bill. I do not know where it is this year.

Mr. KELLEY. If you do work for any other bureau, they pay you just the same as a private firm would be paid?

Captain MACDOUGALL. That is correct.

Mr. KELLEY. The Bureau of Aeronautics is asking for about \$30,000.

Captain MACDOUGALL. If we had anything to repair for Aeronautics, it would be done under the head of "Instruments and supplies," while this "Apparatus and instruments" applies to only the Naval Observatory apparatus.

Mr. KELLEY. Over in your shop I suppose you do some work for the Bureau of Aeronautics and they pay you for the material and for the labor. Now, what would you do with that money—turn it into the Treasury?

Captain MACDOUGALL. It would be taken up in the Navy Department by crediting "Instruments and supplies" and charging it against "Aeronautics."

Mr. KELLEY. So you have no funds which you obtain for performing work for other bureaus?

Captain MACDOUGALL. No, sir; we have nothing for "Apparatus and instruments" except what is in this bill.

REPAIRS TO BUILDINGS, FIXTURES, ETC.

Mr. KELLEY. For repairs to buildings, fixtures, and fences you had this year \$3,500, and you are asking for the same amount?

Captain MACDOUGALL. Yes, sir.

Mr. KELLEY. And you have had that amount off and on for a long time?

Captain MACDOUGALL. Yes, sir.

FUEL, OIL, GREASE, ETC.

Mr. KELLEY. For fuel, oil, grease, pipe, wire, etc., you had this year \$12,000 and you are asking the same amount for 1923. You

have some new language in this paragraph, "and passenger automobile." What is that?

Captain MACDOUGALL. We have a Maxwell truck out there, which is a big heavy truck meant for heavy work, and that truck often has to make trips down to the Navy Department to carry a letter or something of that sort; we also have in storage a Ford passenger automobile that was given to us during the war for necessary duties; that Ford passenger automobile could be very conveniently, and, I think, economically, used to carry these letters or to carry any officer down to the Navy Department who had to go there on duty; and in using that we could presumably keep it up on the same sum of money, because that would save our Maxwell truck, which is meant for heavy work. Therefore I asked a change in the wording so that I might have permission to use that car, which is now idle and which we can not get going in any other way; I mean it is against the law to run it privately, for instance, and supply our own gasoline or anything of that sort; and it seemed to me it would be a very handy and useful thing, and it could be run on the same amount of money, because there would be that much of a saving on the work necessary for the big truck.

Mr. KELLEY. And you have the car?

Captain MACDOUGALL. We have the car; yes, sir. It looks pretty good, although I have never seen it run.

Mr. KELLEY. This would not necessitate a chauffeur?

Captain MACDOUGALL. No, sir.

Mr. KELLEY. Have you a horse and wagon out there—a horse-drawn passenger-carrying vehicle?

Captain MACDOUGALL. Yes; I am allowed a carriage and a team of horses, but to save time I go in my own automobile, that I am fortunate enough to have.

Mr. KELLEY. But you keep the team, do you?

Captain MACDOUGALL. We use the horses for other things. We have an 82-acre place, you see, and a good deal of what you might call ordinary farm work to do in order to keep things in order—landscape gardening, etc. It is a public park, and it is used more or less by people driving through it, and all that, so that we must take care of the roads and keep things in order. We have to maintain control over it ourselves, otherwise the feature of the observatory which requires us to be in the middle of an undisturbed spot might be broken down by heavy traffic or something of that sort.

Mr. FRENCH. Is that the reason for locating the observatory in that large area?

Captain MACDOUGALL. Yes; it has a radius of 1,000 feet in every direction around the clock vaults, where we have our standard clocks, and from our big telescope. Also it is necessary to have trees and grass around. You should not have too many buildings near to it, nor could it be in the vicinity of ordinary city paved streets, because there would be heat vibrations in the air which would interfere with the astronomy.

Mr. KELLEY. If you had the automobile taken care of, would you need the horse-drawn vehicle in addition? Do you use the horses and buggies sometimes?

Captain MACDOUGALL. Yes, sir; I have a number of carriages out there; one is said to have come from the White House. Others did not want them particularly, but they are useful there.

Mr. FRENCH. Do you use the horses in caring for the lawns and grounds?

Captain MACDOUGALL. They are used for different things, but they are primarily furnished for the use of the superintendent, to bring him down to the Navy Department; that is what they were primarily furnished for.

Mr. KELLEY. You probably do not spend much money in keeping up those vehicles?

Captain MACDOUGALL. I spend practically nothing on the vehicles.

Mr. KELLEY. The language here provides for the operation of horse-drawn passenger vehicles.

Captain MACDOUGALL. The language also provides for the purchase and maintenance of them. Of course, the horses cost something, because they have to be fed and shod, but the carriages do not cost anything.

Mr. KELLEY. You do not spend anything on the carriages to speak of?

Captain MACDOUGALL. Practically nothing.

Mr. KELLEY. The horses are used not only for the carriages but for work about the place?

Captain MACDOUGALL. Yes, sir; and we could not get along there without horses.

Mr. KELLEY. If you could use the automobile it would save running the truck down town a good many times? That is your statement, as I understand it?

Captain MACDOUGALL. That is the argument for including the passenger automobile. If I had intended it as a substitute for the superintendent, of course, it would not have come under that appropriation. It is merely a substitute for the truck when it is necessary to do an errand.

CLEANING, REPAIR, AND UPKEEP OF GROUNDS.

Mr. KELLEY. For cleaning, repair, and upkeep of grounds you have this year \$6,500, and for 1923 you are asking for the same amount?

Captain MACDOUGALL. Yes, sir; and that barely covers the necessities.

Mr. KELLEY. Do you want the words "and roads" taken out?

Captain MACDOUGALL. It would be better to have those words remain in the paragraph, because they properly belong there. They were left out by error, as I understand it—a clerical error.

Mr. KELLEY. Last year?

Captain MACDOUGALL. Yes, sir; in the typed document that came from the Navy Department.

NAUTICAL ALMANAC OFFICE.

SALARIES.

Mr. KELLEY. The next item is for salaries, Nautical Almanac office. Last year you had \$18,420, and you are asking the same amount for 1923?

Captain MacDOUGALL. Yes, sir.

Mr. KELLEY. These are all statutory positions?

Captain MacDOUGALL. Yes, sir. In my opinion these employees are all underpaid for their capabilities, and that is true in comparison with people of similar qualifications employed in some of the more recently established branches of the Government.

Mr. FRENCH. Where does this almanac circulate—among the naval officers on the ships entirely or is there a private demand?

Captain MacDOUGALL. The book is issued in two forms; one is called the American Ephemeris and the other is called the Nautical Almanac. Aboard every ship in the Navy it is necessary to have one or two of the larger books and several of the smaller books for navigational purposes; they are also supplied to the merchant service by sale through the Government Printing Office, and the books, especially the Nautical Almanac, are to be found for sale by all ship chandlers and similar people, who get them from the Government Printing Office. The Ephemeris is also used by all astronomers and by persons engaged in the study of astronomy. Incidentally, there is a considerable demand from Members of Congress for extra copies of these books, which they generally get from the Government Printing Office. We have an exchange of the Ephemeris with foreign governments and foreign observatories, because we get their books and they get ours.

PAY OF COMPUTERS.

Mr. KELLEY. For pay of computers on piecework in preparing for publication the American Ephemeris and the Nautical Almanac, etc., you had this year \$1,500, and you are asking the same amount for 1923. In some years you have had more than that. Why are you asking for less than you have had for that work?

Captain MacDOUGALL. They made some reductions about two years ago and found they could combine certain things for the sake of economy.

SATURDAY, MARCH 18, 1922.

BUREAU OF ENGINEERING.

STATEMENT OF REAR ADMIRAL JOHN K. ROBISON, CHIEF.

REPAIRS, PRESERVATION, AND RENEWAL OF MACHINERY, ETC.

Mr. KELLEY. "Bureau of Engineering. For repairs, preservation, and renewal of machinery," etc., for the current year you have \$20,500,000. What are your very latest estimates for the coming year?

Admiral ROBISON. \$14,559,837.80, based on the list of vessels furnished pursuant to the letter of March 16 by the chairman of the Committee on Appropriations to the Secretary of the Navy; my previous estimates totaled \$18,200,000.

Mr. KELLEY. You have a distribution of that, of course?

Admiral ROBISON. Yes, sir. I have here a tabulation showing the unit expense for a ship of each class in commission and out of com-

mission. This also shows the number of ships in each status on the March 16 list. It gives the total estimated cost for ships based on actual figures from the fiscal year 1921, reduced to present prices for labor and materials. [Copies were handed to the chairman and members present.] I will give you the annual unit cost for each class of vessel. In that way, for whatever list of vessels you keep in commission, you will be able to make a figure as to how much is required under this appropriation to run the Navy.

ANNUAL UNIT COST OF EACH CLASS OF VESSEL.

Mr. KELLEY. I think that is a good suggestion.

Admiral ROBISON. For a battleship in full commission, \$160,000; battleship in reduced commission, in ordinary, \$80,900. For a battleship out of commission, \$8,000; for a cruiser, second line, in commission, \$43,095; for a cruiser, second line, out of commission, \$8,000; for a light cruiser, first line, the new ones, \$63,525; for a light cruiser, second line, the old ones, \$63,525—

Mr. KELLEY (interposing). The first ones were the three new ones.

Admiral ROBISON. Yes, sir. But it is from the old ones that I have made the estimate of \$63,525; light cruiser, second line, out of commission, \$6,500; for aircraft carrier, \$57,120; for a mine layer, second line, \$46,300; for a mine layer, second line, out of commission, \$4,500; for a destroyer, in full commission, first line, \$17,000; with a 50 per cent complement, \$15,485, and out of commission, \$1,500.

It is from our experience with destroyers of the second line that we have obtained the figure that I have used for destroyers of the first line out of commission. The charges are comparatively small, and I assume that they would be the same for each class of vessel.

Mine layer in full commission, \$26,925; light mine layer, out of commission, \$1,500; submarine, first line, in full commission, \$16,000; submarine, second line, out of commission, \$1,500; eagles, \$7,000; eagles, out of commission, \$1,500; subchasers, out of commission, \$75; gunboat, \$16,075; yacht patrol, \$12,975; yacht patrol, out of commission, \$2,000. That last seems to be out of line with the \$1,500 I have given heretofore.

Mr. KELLEY. It may be a little larger yacht.

Admiral ROBISON. There are only a few of them and that \$2,500 may turn out to be \$2,500; I rather think it will. Destroyer tenders, in commission, \$49,625; destroyer tenders, out of commission, \$6,000; submarine tenders, in commission, \$33,725; submarine tenders, out of commission, \$6,000; lighter than air tenders, \$44,025; repair ships, \$44,500; repair ships, out of commission, \$6,000; store ships, \$50,000; store ships, out of commission, \$5,000; colliers, \$58,375; colliers, out of commission, \$6,000; oilers, in commission, \$44,875; oilers, out of commission, \$4,500; ammunition ships, in commission, \$50,000; cargo ships, \$41,750; cargo ships, out of commission, \$4,200; hospital ships, \$61,625; transports, out of commission, \$4,200; hospital ships, \$44,675; hospital ships, out of commission, \$4,500; fleet tugs, \$11,000; fleet tugs, out of commission, \$1,000; mine sweepers, \$13,650; mine sweepers, out of commission, \$1,000; auxiliaries, miscellaneous, \$1,000.

47,625; unclassified, in commission, \$5,275; unclassified, out of commission, \$1,000.

On the basis of the number of ships that are retained in one or the other of the three conditions, full commission, half crew, and entirely out of commission, you will get radically different totals as to the amount that will be required for engineering expenses on the vessels.

Mr. KELLEY. Assuming that the list of ships you have given here are all kept in commission, what will be your expense?

Admiral ROBISON. The table I have furnished is one that was based upon the letter of the chairman of the committee of the 16th of March to the Secretary and, I am informed, is the list of vessels that would be kept in commission if the total naval personnel were 65,000. If you desire, I can give you the names of these vessels.

Mr. KELLEY. Now, that represents, as far as the ships are concerned, the basis of your figures?

Admiral ROBISON. Yes, sir. We have, in addition to that, a considerable number of items that aggregate large figures.

Mr. KELLEY. Let us for the moment stick to the ships and consider the others afterwards.

In determining that it required \$160,835 under Engineering for a battleship that is kept in full commission, how did you arrive at that figure?

Admiral ROBISON. I have taken the figures of cost of the fiscal year 1921 and decreased the material cost 18 per cent and the labor cost 25 per cent, which correspond, as closely as I have been able to compute, to the present conditions. The figures given are just as nearly accurate as I can estimate. If wages go up next year, these figures are too low, and if they go down these figures are too high. If material goes up in price, these figures are too low, and if material goes down in price, or if I can get a lot of material for nothing greater than amount that I am now getting for nothing, these figures are too high.

SALVAGE FROM SHIPS SCRAPPED.

Mr. KELLEY. What would you say as to the salvage from the scrapping program, so far as it affects your bureau?

Admiral ROBISON. There is in these ships a lot of apparatus that we want to use, and if I get permission to use it I shall do so. It consists chiefly of electrically operated pumps, of ice machines that are electrically operated, or of an improved type of ice machines now in use. The new ones are operated by CO₂. They cost much less to run than do the ones that we have installed on many of our ships, and I would like to put them in. They will make the ships cost less to run. That sort of thing will save us the price of new material, provided we had money enough otherwise to buy that new material. As it stands, these figures do not allow for any improvements anywhere.

Mr. KELLEY. They are just repairs and what else?

Admiral ROBISON. They include, as given here, Title C—that is, the cost of supplies that are necessary to prevent rust, the cleaning of the hull, and that sort of thing; Title D—that is, material and labor required for repairs incident to service, renewal of condenser or boiler tubes, and that sort of thing, or the repair of a turbine; Title K, the cost of current minor alterations that have been passed upon. Every

last one of these things has already been determined as necessary for the fighting efficiency of the ships. It does not include any alterations or improvements for economy. For instance, I want to put on every battleship a listening device for these sound instruments, and a great many of them lack the proper blister in which the receiving apparatus is placed. That is one of the class of alterations included: I have a general list. The list also includes Title P, the cost of repairs to equipment of a ship, things like searchlights, electrical fixtures that are a part of the ship but not provided with the vessel from the contractors, articles provided by the Government as utensils for the accomplishment of our end. All of these things are included in what we call Title B. In the last column are the costs of renewal. A searchlight may be completely wrecked. Such things have occurred from gunblast. They have to be completely renewed, a new one purchased rather than attempt to repair the old one. It will cost \$160,835 a year to take care of the engineering work on each battleship in active service.

If you keep them anchored, you will not need that much. It will require \$22,960 to supply them with their cleaning gear and ordinary supplies incident to commission. That is how the figures were arrived at. The same explanation applies to the figures for each of the other classes of vessels.

Mr. KELLEY. Having in mind what has been ordered for the battleships that are not to be built and what has been accepted or what probably have to be accepted, would you say that there would be quite a large quantity of material that you could use?

Admiral ROBISON. I hope so.

Mr. KELLEY. At scrap prices that would be included in this estimate of \$160,000 per battleship—I am leaving out your proposed improvements and only speaking of the ordinary affairs. If you have that in inventory at its scrapped value—there probably will be a great deal of it; that would make quite a difference in your figures, would it not?

Admiral ROBISON. I have not yet taken that into consideration, Mr. Chairman. About the largest item of considerable value would be the straight copper piping. Perhaps I can get a certain number of condenser tubes that I could use and fit into other ships. In the next year nearly \$1,000,000 worth of condenser tubes that I know of now, and probably later on if the boiler tubes have not already been bent to fit the special type of boiler that is required for the new vessels I could cut off enough of the length of them so that I could use them in some of the boilers that are now on hand. Those might decrease the appropriation charges. I do not know.

Mr. KELLEY. It would seem that you would have an enormous quantity of fine material.

Admiral ROBISON. Yes, sir. The taking of the inventories is in hand. I have not the report from a single locality. It was started a month ago.

Mr. KELLEY. You have spent already over \$300,000,000, you say, Admiral Taylor?

Admiral ROBISON. Yes, sir; we have spent about \$360,000,000.

Mr. KELLEY. And Ordnance another \$100,000,000. There would be, of course, the machinery end of it, which would yield the largest saving return?

Admiral ROBISON. There is one ship from which I could now obtain most a complete spare propelling unit for a first-class battleship.

Mr. KELLEY. That is fine.

Admiral ROBISON. But I have not the battleship to put it in.

Mr. KELLEY. You will not need that this year; but that is only a sample, perhaps, of the machinery that you will have on hand or at you will really need. You can not foresee, of course, for next year.

Will your appropriation run about 60-40 as between material and labor?

Admiral ROBISON. A little bit different from that. I would invite your attention to the first sheet of the booklet of expenditure charts, which is an integral of what is happening to the appropriation as compared to last year. The expenditures of last year are shown in blue on sheet A, and the actual expenditures for this year are shown in yellow. That is by months.

Mr. KELLEY. It looks like you had a pretty good hold on the situation.

Admiral ROBISON. I do not intend that there shall be any deficit. On sheet B you will note that the material—all the expenditures on the first part of sheet B are for material—has been repeatedly in excess of what it was last year. We have accomplished a decrease in our monthly expenditures in excess of a million dollars, as shown on the first sheet. We have materially increased our service to the vessels of the fleet.

Mr. KELLEY. That has been by extra care during the year and, I suppose, some reduction in price.

Admiral ROBISON. I am not talking about quantities; I am talking about costs. We are actually putting as many dollars into the fleet as we did a year ago and we are spending \$1,100,000 a month less on the whole establishment, shore and fleet.

Mr. KELLEY. That can not be, can it?

Admiral ROBISON. That, fortunately, is the exact truth. This will explain it. Take Sheet C of the Booklet of Expenditure Charts and you can see what has happened to the shore expenditures. We are spending approximately only three-fifths as much as it was last year at the shore stations. Take Sheet D, and compare this year and last year—that is, compare the yellow with the blue—and you will see that while several times last year we got up to \$2,000,000 a month at the shore stations we are repeatedly this year falling below \$1,000,000 a month. That is where the \$1,000,000 comes.

If you will note Sheet E you will find that the cost is \$3.50 to every dollar's worth of material on the ships, if you put it on at the yards. That is the ratio. It costs us \$3.50 to put a dollar's worth of material on a ship, if the labor is performed at the navy yards, but if we put the material on the ship and let the ship's force do the work, it costs us \$1 instead of \$3.50. That is where we are making headway, because the ship's forces are doing a larger proportion of their own maintenance work. The fleet is much more self-maintaining in that respect.

Mr. KELLEY. That is what brings your labor and material a little closer together. If you do not have to pay civilians, but can have the work done on shipboard, it brings the labor cost and the material cost closer together?

Admiral ROBISON. Yes, sir.

Mr. FRENCH. Do you do that work on the ship itself, or is it done in connection with one of those tenders?

Admiral ROBISON. It is done on board the ship itself, but we have repair ships that are used, too. We have the repair ships *Prometheus* and *Vestal*.

Mr. KELLEY. Taking your appropriation for ships as a whole, how would it divide as between labor and material?

Admiral ROBISON. I do not think I have that figure.

Mr. KELLEY. You have stated the situation.

Admiral ROBISON. I will have to make a calculation in order to know.

Mr. KELLEY. We are speaking now of the ships.

Admiral ROBISON. Sheet F shows what we have ashore. We are at present spending \$517,500 for labor and \$192,600 for material ashore per month. To find the total material charge, to that should be added the material for the fleet, which for seven months has averaged about \$525,000. We will, therefore, have 517,500 to 717,600 as the ratio.

Mr. KELLEY. That is not far from 40 to 60.

Admiral ROBISON. It is about 5 to 7. To the material that we are now charging to ourselves, should be added the value of salvaged material that we are using. I have not an exact record of that. I know, for instance, that we have used over \$500,000 worth of tool steel and a lot of belting. We used two carloads of belting that did not cost us a cent, and I know that we used \$3,618,384 worth of various machine tools. We have not done all of it this year, but since we got hold of it at the beginning of the last fiscal year.

The salvaged material that we are now using amounts to a very large figure. If you are considering our present expenditures and expecting that the newly recovered salvaged material will take care of our future expenditures, I do not think it will be quite safe, because the salvaged material is becoming rather scarce, and we will not be able to use anything like as much in the future as we have in the past because there will be so much less available.

Mr. FRENCH. A good deal of this material from the war was charged up to you at very high prices, was it not?

Admiral ROBISON. Some of it, yes; and some of it I have gotten for nothing. There was a law passed last year that enabled a revaluation of the war stocks to current market prices. That cut down the price of condenser tubes, for instance, from 37 cents to 19 cents per pound, or it practically cut that price in two. Copper went from 28 cents to 11 cents, or less than half the former price. Those reductions make a big difference, and we are no longer called upon to pay war prices for material on hand, but we can obtain it at market prices.

Mr. KELLEY. As to this other material, of course, I know you can not tell how much of it you can use, but it will be a very large quantity, will it not?

Admiral ROBISON. This year we used \$827,387.63 worth during the first six months.

MATERIAL ON HAND.

Mr. KELLEY. You have pretty nearly all of the machinery ordered for the 14 ships, have you not?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. And it is well along under construction?

Admiral ROBISON. Much of it.

Mr. KELLEY. And that which is not set up in machines is pretty well fabricated?

Admiral ROBISON. If I could get authority to put the machinery ordered for the *Washington* on to one of our older battleships, it could be done under the law and under the treaty, too. It would not increase the power of the ship, but it would make her a more reliable and better ship. To do that would cost Admiral Taylor something over \$1,000,000, and it would cost me well over a million dollars; but, of course, we do not expect to get those two million dollars this year. I desire to take that machinery and place it in storage.

Mr. KELLEY. I was speaking more particularly of the material that is on hand fabricated, and which could be used for repairs, spare parts, and that kind of thing, in connection with the ships that are now in existence. You will have to scrap those ships and will have to establish a scrapping value, and the price that the Navy might put on the scrapped material is what anybody else would pay for it. Do you not think so, Mr. Secretary?

Secretary DENBY. You mean if we used the scrapped stuff that has already been paid for?

Mr. KELLEY. If you have the material in a ship that you are not going to finish, and can take it out and use it for repair purposes, that material will have a scrap value that will have to be determined. I do not know how you will determine it, but the situation would be just what Admiral Robison bought material for repairing engines, for instance, he would buy it at the scrap price.

Admiral ROBISON. The condenser tubes you could probably sell for not more than 9 cents. We have a lot of defective tubes in stock.

Mr. KELLEY. How much would you need?

Admiral ROBISON. We will need a million dollars worth of them next year, but I do not know how many we can get out of those ships.

Mr. KELLEY. What about electrical instruments and things of that sort?

Admiral ROBISON. Some of them I can probably use, but I do not know. As soon as the call for this limitation conference went out I gave orders not to make any more contracts for materials for new ships building.

Mr. KELLEY. That was a wise thing.

Admiral ROBISON. We have no contracts made for the boilers; rather, the boilers were not ordered for four of these ships, and a lot of other materials were not ordered. That will serve to decrease the amount of materials available for our use. It will probably cost this appropriation a little, but I do not think the Government will suffer.

Mr. KELLEY. You would not want to hazard a guess as to what you would save on that account?

Admiral ROBISON. Yes, sir; I can guess. I guess that I save \$500,000 next year from that material.

Mr. KELLEY. Not more than that?

Admiral ROBISON. That is my guess.

Mr. KELLEY. That would be a very safe guess.

Admiral ROBISON. No, sir; that is my guess. The condensers are not all ordered. As you see, this guess is made right off the top and it may be radically too low or radically too great.

Mr. KELLEY. I am just trying to visualize those ships and machinery for the ships still under way, with boilers, engines, and material of every kind and description ready to go into them.

Admiral ROBISON. If the boiler tubes are bent I can not mend them.

Secretary DENBY. You want to find out how much of this material would replace new material that otherwise would have to be bought.

Mr. KELLEY. The admiral is asking \$9,000,000 for material and labor to repair 18 battleships that we already have. He says that about half of that \$9,000,000 represents the material. He was figuring it, of course, upon the basis on which he has been going, of buying the material for the Navy, and I was injecting this other element into it—that is, that he would have large quantities of material of the finest quality that can be sold to the Navy, or anybody else that wants it, at scrap prices. If we gave him the amount that he estimated, he would have more money than he would have if a considerable part of this material could be used in the repair of the ships.

Admiral ROBISON. If I have to buy that scrapped material and put it in storage, I would lose money.

Mr. FRENCH. You mean by that, if you bought the material and used simply what you could use, and let the rest remain in storage?

Mr. KELLEY. The Navy will have the first call on it, and can't get what it wants, no doubt. If I were the Secretary of the Navy, I would try to arrange it that way.

Secretary DENBY. I presume that that is a matter of so much indefiniteness that it will be difficult to make more than the rough guess he has made.

Admiral ROBISON. If you simply authorized the Navy to receive such material as it needed and required no charge at all for it, I think it would be better. The material has already been paid for out of the appropriation, "Increase of the Navy."

RADIO SHORE STATIONS.

Mr. KELLEY. What is the rest of the estimate made up of?

Admiral ROBISON. There are a good many items, and the largest one is radio, radio shore stations. I have included the item of radio on board ships in the ship expense. Radio shore stations represent the largest expenditure.

Mr. KELLEY. How much is that?

Admiral ROBISON. That depends.

Mr. KELLEY. How much does it figure out?

Admiral ROBISON. I have figured it at \$3,782,510, but that includes \$960,150 of expenditures that are debatable. The urgent and immediate necessity for the \$960,150 does not exist, but it is desirable.

d it will save the Government money in the long run to provide it. do not know how much more a dollar is worth to-day than the dollar and a half or two dollars that it will cost you next year. That for you to decide. The radio expenditures that are to-day necessary and urgent amount to \$2,822,360. That is for next year.

Mr. KELLEY. Is that just for repairs?

Admiral ROBISON. No, sir; that covers repairs, improvements, maintenance, and operation. That represents all of those expenditures that are chargeable to my appropriation.

Mr. KELLEY. You do not pay for the men?

Admiral ROBISON. I do not pay for the men. I pay for all the material for the grounds, for the buildings, for the power, for the apparatus, for the renewals, and for the upkeep.

Mr. KELLEY. How much of this is for entirely new construction?

Admiral ROBISON. Not much. If you will look on the next to the last sheet of the Booklet of Expenditure Charts, you will see there the appropriations and expenditures for last year and this year and what we estimate for next year for maintenance, improvements, and alterations. That is for shore radio and for shore radio compass stations. The last sheet shows the expenditures on board ship. We have estimated \$1,268,160 for the maintenance of the shore radio stations.

The items for improvements and alterations I have cut since the pamphlet was prepared by eliminating some items. We have estimated for the Atlantic section shore stations \$190,500 for urgent improvements, and \$370,000 for work that is necessary to be done once. In the Pacific section we have estimated \$369,000 worth of urgent improvements, and \$293,300 worth that are necessary, the total being \$1,222,800. To maintain the radio service of the two sections the estimate is \$1,268,160. For the radio compass stations, the total is \$214,500, with \$68,400 for maintenance. The constant and research work, which is saving us enormous money to-day, is estimated to cost us \$48,500 next year.

Mr. KELLEY. How much more are you estimating for next year than you are going to spend this year?

Admiral ROBISON. It is less.

Mr. KELLEY. It was how much last year?

Admiral ROBISON. This year it is \$4,117,728.

Mr. KELLEY. How much have you spent up to date?

Admiral ROBISON. A little over half of it. We have additional contracts let for about one-fourth of it, and I think between 75 and 100 per cent of it is either spent or obligated. For the year 1921 the total expenditures were \$5,343,304.

Mr. KELLEY. This radio business is quite expensive.

Admiral ROBISON. We can not do something for nothing. We are doing that better than anybody else, I think.

Mr. KELLEY. This does not involve any new stations?

Admiral ROBISON. That \$2,822,000 estimate, I believe, involves using 35 subordinate stations.

Mr. KELLEY. This sheet shows that the improvements, maintenance, and alterations of established stations on shore are in excess of the cost for 1922.

Admiral ROBISON. You will note that although this graph made up that way, the amount I have requested is less than amount appropriated for the current year. You should substitute \$1,222,800 for \$1,844,400.

SAMOA RADIO STATION.

CONSTRUCTION OF STEEL TOWERS, ETC.

Mr. KELLEY. You might give us a little more detailed information about the item of \$126,000 for Samoa.

Admiral ROBISON. Two 150-foot steel towers will cost \$90. The present towers are of wood, with lattice work, erected when 30-kilowatt station was originally established. The steel tower will be permanent. It has been definitely determined that station can communicate satisfactorily with the Hawaiian Islands.

The station is a permanent one and permanent towers are required. The present ones are liable to fall down. It is the only system of communication with that part of the world, and there is no other native cable communication. Another item is a duplicate 30-kilowatt arc converter, to be installed, \$15,000. This is to insure the continuous operation of this isolated station. The radio station itself is not in a part of the island that is inhabited by white people and there will be required some quarters. No quarters have been provided for the officer in charge. He is in charge of the whole district, or island, and the operators or enlisted men have got to have places to live.

Mr. KELLEY. That amounts to about how much?

Admiral ROBISON. That will cost \$19,500. There are miscellaneous items which have not been listed amounting to \$1,500. That will provide for miscellaneous expenditures that it is impracticable to foresee. It is in part a contingent expense. These people must be on call every moment.

Mr. KELLEY. You have authority to build quarters?

Admiral ROBISON. Yes, sir. That \$126,000 gives the entire amount. I have complete responsibility for all expenditure in connection with the radio shore station.

HAWAIIAN ISLANDS RADIO STATION.

ERECTION OF STEEL TOWERS, ETC.

Mr. KELLEY. Give us the details of the \$295,000 for the Hawaiian Islands.

Admiral ROBISON. As you know, this is the center of our western Pacific work. I wish to erect two additional 600-foot towers to insure satisfactory service with Cavite, so as to handle the increased volume of traffic with the Philippines without delay. We have a great increase in our transpacific traffic; some of it was due to the fact that the cables have broken down from time to time. As to the Limitation of Armament Conference reports were sent by radio, the press reports, and I am informed that those were the only authentic reports that were received in China. It was the only way in which the whole truth could be gotten to China.

giving the ground system, \$10,000; new loading coil, \$10,000. Do you want the details and the reasons for each of them?

Mr. KELLEY. No; give the sums.

Admiral ROBISON. To erect concrete power house at Heeia, \$7,500; construct roads to station site, \$3,000; construct control and communication line from the remote control and receiving station at Wailupe to the high-power transmitting stations at Pearl Harbor and Heeia, \$60,000. This will reduce expenditures and avoid paying rent. Fifty thousand dollars for advance radio stations at the bases in the Hawaiian Islands, \$10,000 for miscellaneous items which it is impracticable to foresee. That makes \$295,000 for that line. It is, perhaps, our most important link in the transpacific line.

POINT ISABEL, TEX., STATION.

ERECTION OF TOWERS.

Mr. KELLEY. Give us the details as to Point Isabel, Tex., \$300,000.

Admiral ROBISON. Point Isabel, as you know, is right at the mouth of the Rio Grande. The necessity for this station is that of maintaining continuous American communication with the Panama Canal; likewise it is the station we are depending upon to communicate with the smaller vessels not equipped with the high-powered and most expensive radio equipment, when the vessels are in the Eastern Caribbean or in the lower part of the Gulf of Mexico. Point Isabel is a relay point between San Diego and Darien, and in order to make that station work properly a lot of money will have to be spent; it will cost \$300,000, and the money will be used in erecting larger towers, which are required to transmit messages for considerable distances. It is one of the coastal stations, but it is now only good for a small radius and for sending messages to vessels that are comparatively close proximity. We have got to be able to talk to Panama, and the reason for bringing the communication near the mouth of the Rio Grande is because it is the closest place to Panama that is American, and I do not think we want that radio tower anywhere else. The place is rather difficult of access.

Mr. KELLEY. Are any quarters included?

Admiral ROBISON. \$500 is included for furniture, but that is all.

Mr. KELLEY. There are no quarters included, and it is mostly for the towers and the power?

Admiral ROBISON. Two masts, the antenna and the power plant. We have no big cable bills to pay for messages sent across the Pacific today; if you have any bills at all they are practically nothing. We turn into the Treasury as miscellaneous receipts several thousand dollars every year aside from the work we are doing for other departments of the Government. This is, in part, an investment. I do not know that Captain Bryant has made the idea quite clear, but my work is not to determine the operation of it but to make it so it will operate. It is an absolute necessity. If you are going to communicate with your ships at sea you have got to have it, and if you want to do it properly you do not want to duplicate it; that is to say, you do not want a naval radio station, an Army radio station, an Interior Department radio station, and a Post Office radio station, in one town. The Navy has one and it is doing the radio work for

all of the Government departments along the coastal zone. We sending by radio communications that are delivered all the way and down the Pacific coast. Our telegraph bill is cut down transcontinental work and you have seen the effect of it in the figures giving the amounts expended. We are not spending as much telegraph bills to-day as we used to spend.

Mr. KELLEY. I wish that were so.

Admiral ROBISON. I may have been misinformed and you are man who provides the funds. But I know you are not spending anything like as much as you would if you had to pay for commercial service for the messages that are being sent across the continent by radio. My business is to furnish the service.

Mr. KELLEY. You want \$2,822,360?

Admiral ROBISON. Yes, sir.

GREAT LAKES RADIO STATION.

Mr. KELLEY. What are the other items in this?

Secretary DENBY. Has that been analyzed as to interior stations?

Admiral ROBISON. There are no interior stations.

Secretary DENBY. How about the Great Lakes?

Admiral ROBISON. We have radio-compass stations at the Great Lakes, but they are not of much use to the Navy, and as soon as someone will pay the cost of running them I will turn them over.

Mr. KELLEY. That is a rather negligible sum?

Admiral ROBISON. Yes.

Mr. KELLEY. The items you have been giving include some heavy replacements.

Admiral ROBISON. They include some improvements and replacements, new steel masts instead of wooden masts.

Mr. KELLEY. Is it imperative that these replacements be made this coming year?

Admiral ROBISON. I would not ask for them unless I felt they were immediately and really necessary.

Mr. KELLEY. But sometimes officers do ask for things that are really imperative. It is like painting a house; you can postpone it.

Admiral ROBISON. But I do not want these masts to fall down. We have had two masts fall down this winter and I do not like it.

RENEWALS TO INDUSTRIAL YARD EQUIPMENT, MAINTENANCE OF EQUIPMENT AT MILITARY STATIONS, ETC.

Mr. KELLEY. Take the next item.

Admiral ROBISON. Major renewals of industrial yard equipment \$200,000; maintenance of equipment at military stations, \$200,000; repairs to equipment in store, \$300,000; models, tests, and experiments, \$150,000. I have labeled as contingent a figure of \$350,000, and I have an item of cost of commissioning vessels—that is, equipment we put aboard them—\$50,000. That contingent is contingent in the ordinary sense of the word. It is to provide for excesses in one or the other of these particular items I have mentioned, and all other items of the appropriation, excesses above the amounts I have given, which may be less than the amount which will be needed in some cases. I am going to try to live within the figures I have given, but I do not believe I will be able to do it.

will be glad to furnish you with the facts upon which I base that statement.

Mr. KELLEY. Is that all?

Admiral ROBISON. No; that is not quite all. That is a total of \$250,000.

Mr. KELLEY. That is the total of the last items you have mentioned?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. What else?

EXPERIMENT STATION.

Admiral ROBISON. Experiment station, \$82,000, and that is required in addition to the special appropriation you have made for the experiment station. The labor force there is paid out of the \$200,000 appropriation for the station and the materials used there, but the technical and clerical force is paid out of the engineering appropriation itself, and the amount of the "engineering" expense on account of the experiment station is \$82,000. We have in addition to that an item of \$665,312.80.

Mr. KELLEY. What is that?

PAY OF CLASSIFIED FORCE.

(See p. 541.)

Admiral ROBISON. Classified force at nonindustrial yards paid for out of engineering appropriations and for inspection forces.

Mr. KELLEY. What else?

Admiral ROBISON. That is all. There are a lot of other items I could put in but I have left them all out, and I have done it deliberately in order to arrive at a figure that is as low a figure as it is possible to give, in my opinion, without providing for any improvements anywhere.

Mr. KELLEY. You do not mean quite that.

Admiral ROBISON. I almost mean that.

Mr. KELLEY. Because there is \$1,000,000 for radio improvements.

Admiral ROBISON. Well, where I have to make a change and here I have to make a replacement, any way, I have included the proper change or replacement, but I have made no change that was not immediately demanded. I have got to put up two masts, that is a certainty, whether they be steel or wooden masts. This is the only sort of improvement that I have included in my estimates.

Mr. KELLEY. Then these items, including the radio, amount to \$1,819,672.80, plus what you have for the ships?

Admiral ROBISON. Yes; plus the amount I have for the ships, \$974,016.5.

Mr. KELLEY. And you are asking for about \$14,000,000?

Admiral ROBISON. \$14,559,837.80.

Mr. KELLEY. As to the classified service, how much of a cut have you made under the current year?

Admiral ROBISON. Last year we had 1,089 at yards while at present we have 978; 44 of them are to be paid for next year under the Bureau of Aeronautics, so that gives us 934, and that is as of the 8th of March.

Mr. KELLEY. All of your "Increase of the Navy" classified service is paid for out of that fund?

Admiral ROBISON. That is not all, as I recall it; that is for the navy yards.

Mr. KELLEY. As I say, the "Increase of the Navy" classified service is paid for out of this fund?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. I think the law requires you to charge it here.

Admiral ROBISON. It does.

Mr. KELLEY. So the \$665,312 is the whole thing and we can reduce the limitations we have in the bill, from \$2,500,000, which we allowed you to spend last year, to—

Admiral ROBISON (interposing). The \$665,312 covers only the classified force not at industrial yards, we are spending at this time at a very decreased rate; including classified force at industrial yards we are spending at present at the rate of \$1,944,240.19.

Mr. KELLEY. And you are making a cut to \$665,000 for next year?

Admiral ROBISON. No; the \$665,000 does not represent all of the clerical force. The clerical force at the yards is charged into the work on ships as overhead expense.

Mr. KELLEY. I thought the law required you to charge all of your classified service to this appropriation.

Admiral ROBISON. It does; but I have it charged—

Mr. KELLEY (interposing). Some of this is in these other items; we ought to have this classified service altogether.

Admiral ROBISON. Well, I have some more of this, and I can cover the classified service rather completely.

Mr. KELLEY. Let us have the full amount for it.

Admiral ROBISON. We now have employed in the Bureau 60 technical employees and the annual expense is \$179,305.18; we now have employed at navy yards and stations, exclusive of the bureau—well, some of them are going to be charged to aeronautics and do you want me to exclude those who are going to be charged to aeronautics?

Mr. KELLEY. No; let us have everything that is to be paid out of this fund next year.

Admiral ROBISON. Nine hundred and thirty-four, with annual compensation of \$1,684,030.77. We have 94 clerks employed at the bureau.

Mr. KELLEY. That is in another place.

Admiral ROBISON. That is in addition to the technical employees. I only gave you the technical employees at the bureau, and I have not given you the clerks who have been paid under the legislative bill.

Mr. KELLEY. We do not want that; we just want what is paid for out of this fund.

Admiral ROBISON. We have transferred to the Bureau of Aeronautics and to the Secretary's office certain clerks who are not included in the figures we are submitting.

Mr. KELLEY. \$1,863,335.95 is the sum total of your classified service paid out of this appropriation?

Admiral ROBISON. That is it.

r. KELLEY. That is almost exactly three times what it was in 1915.

Admiral ROBISON. Yes, sir; and in that connection—

r. KELLEY (interposing). Can you not help us a little on that?

DECREASED USE OF FUEL OIL.

Admiral ROBISON. Yes, sir, and I would like to give you some information. The commander in chief of the Asiatic Fleet sent in—I received it about three days ago—a letter from the commander of the destroyer squadron out there reporting that the destroyer squadron had decreased the use of fuel oil 49.8 per cent at anchor and 50 per cent underway.

r. KELLEY. Who made that report?

Admiral ROBISON. That comes from Asia; Admiral Strauss forwards it, and it is from Capt. Willis McDowell, and I would like to tell you what he ascribes that to.

r. KELLEY. How he did that?

Admiral ROBISON. Yes. It is believed that these gratifying results are due to the policy of engineering officers exacting compliance with the Bureau of Engineering's instructions regarding methods of operation, routine inspections, and tests. It is believed that the instructions contained in the pamphlets dealing with fuel-burning operation, distillation, and boilers have been most important in obtaining this increase in economy. That is what I am using these for.

r. KELLEY. To force compliance with your instructions?

Admiral ROBISON. No; but to make the instructions of such manly value as to demand compliance with them. I have these men collecting information, collating it, pointing out improper methods of operation and of maintenance, and emphasizing the best methods of operation and maintenance until I feel sure that if I can keep them at that work—it will take me, perhaps, two years—I will have compiled a manual of engineering instructions that will be a model for the world.

r. KELLEY. How many men are you using for that?

Admiral ROBISON. I have every last mother's son working on that correctly, and I have about 10 of them working on it solely; but every one is doing something; every officer I can get hold of is doing something with it, and I glean information from the log of every ship.

r. KELLEY. Do you think that Admiral Strauss's division was more wasteful than any other division until they began putting this information into force?

Admiral ROBISON. My information leads me to think it was not.

r. KELLEY. What is the relation of the oil used under way to the oil used in port?

Admiral ROBISON. About one-half, I think.

r. KELLEY. That would mean a tremendous sum of money in repairs.

Admiral ROBISON. We sent from the Pacific to the Atlantic 11 ships. They were in two lots—destroyers. They had been trained together. One of them on the trip from Colon to Charleston, S. C., consumed 53,736 gallons of fuel oil. Another ship, exactly like it, except in condition of maintenance, wear and tear, and personnel, used

92,451 gallons. That is 80 per cent difference. One of them got there with enough fuel to fight and come back, and the other could not.

Mr. BYRNES. What is the explanation, personnel, or what?

Admiral ROBISON. These ships were built in the same place. They were sister ships in every particular, except personnel, not only personnel on board, but the personnel that had been on board in the past. It was the condition of the machinery. Gentlemen, we have now on hand on the vessels in this list that we will keep in commission if we have 65,000 men, an amount of work required in order to get the machinery on all of those ships in good operating condition, that is simply appalling. I can not reduce the amount of this necessary work one cent with the appropriation I have asked for, not one cent.

AMOUNT NEEDED TO BE EXPENDED ON MACHINERY OF SHIPS, 1923.

Mr. KELLEY. Do you mean to say that the destroyers are in that condition?

Admiral ROBISON. I do not.

Mr. KELLEY. In good condition?

Admiral ROBISON. Generally speaking; yes, sir. There is \$16,000 that I know of that has to be spent on the machinery of the ships of the Navy to make them fit for action. How much more, I do not know. The ships to be kept in condition next year, the smallest I have seen, starts off with 12 battleships. You have to perform those ships \$5,955,053 worth of work right now.

Mr. KELLEY. That would be \$600,000 a ship.

Admiral ROBISON. That includes besides the 12 battleships all the ships on this list that is headed with 12 battleships. Here is a compilation of the various items by ships.

Mr. KELLEY. You gave us the unit cost, by the way?

Admiral ROBISON. Yes, sir. That did not include any of this. I gave you the figure that is necessary to keep us from getting further behind or I gave you the figure that will enable us to maintain our present rate of going behind or ahead, I do not know what we are doing. We have now on hand this amount of work that has to be done before the machinery of the ships is ready for such service as the ship is fitted by design to perform in peace or in war. I can not ask for one cent for that purpose and I have not. I am authorized to ask for it.

Mr. KELLEY. What is the matter with the ships over and above the current repairs?

Admiral ROBISON. \$6,000,000 of current work that is not that is one thing.

Mr. KELLEY. Do you mean that the limitation which Congress put on you of \$300,000 a ship does not allow you to do that?

Admiral ROBISON. No, sir. I mean that the limitation that Congress has put on me of \$20,500,000 does not allow me to do that. I know you do not believe it; but I can not help it.

Mr. KELLEY. Then, if I were running the Navy I would spend money on useful ships.

Admiral ROBISON. That is what we are trying to do. In 1914, 1915, 1916, and 1917 you gave us on an average \$3.50 horsepower per annum to maintain our ships. That applies to

ship that we had, whether in commission or out of commission, active or inactive. I just included all of the power and all of the ships. Last year you gave us \$1.75. You can not do the work at that rate.

Mr. KELLEY. That is because you have the Navy filled up with junk, with old stuff that you picked up in the war, tankers, tugs, yachts, cruisers, subchasers, and eagles, a lot of stuff that is simply headwood, and as long as you spend money on that kind of junk you will not have it for these important ships. That is why we are going to fix it, if we can, so you will not spend the money on this junk, but will spend it on valuable ships.

Admiral ROBISON. I want to do it. I might mention the most successful commercial ship operator in this country—I can not mention his name—spends for quadruple expansion engines \$19.96 on each horsepower and for triple expansion engines \$16.17 per horsepower.

Mr. KELLEY. Let us see where you spend your money.

Admiral ROBISON. I will explain that the expenditure for engineering is going more and more into the ships, more into the ships to-day than ever before. I am going to get just as much more there as I possibly can. That is why I have more materials going on the ships to-day than a year ago, spending \$1,000,000 a month less, as I stated some time ago.

EXPENDITURES FOR REPAIRS, 1922.

Mr. KELLEY. You spent on all the battleships, first and second line, the whole business, \$730,000 for repairs. How much did you have in your appropriation this year for repairs?

Admiral ROBISON. The total amount in my appropriation for this year was approximately \$1,700,000 per month, \$20,500,000.

Mr. KELLEY. You had \$20,500,000 and you spent \$730,000 on these ships?

Admiral ROBISON. In what time?

Mr. KELLEY. Three months.

Admiral ROBISON. That is right.

Mr. KELLEY. That is only \$730,000; you spent \$24,000 on armored cruisers; \$15,000 on cruisers of the first class; \$27,000 on cruisers of the second class; \$128,000 on cruisers of the third class; on destroyers you spent \$785,666.24; you spent \$172,765 on the submarines, that is on all of the submarines; you spent a lot of money on the subchasers?

Admiral ROBISON. I may have; I admit it.

Mr. KELLEY. You spent for repairs alone on some of them \$5,000, some of them \$2,900, and some of them \$1,724?

Admiral ROBISON. Putting in a new engine costs money.

Mr. KELLEY. I know; but they are not any good after you get the new engines. You spent \$121,016 on those little craft?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. Here are the Eagle boats, \$36,162.95. On the tenders for torpedo boats, which, of course, you have to have, you spent \$106,000. On gunboats, \$44,867 in three months. On transports, \$12,953. On fuel ships, \$382,512. On mine sweepers, which are nothing but tugs, \$216,647, and in three months on repairs to converted yachts and patrol vessels, \$205,729. There are some

more tugs, tugs galore, \$200,685.78, and so on. I am not halfway through with this situation of the first three months. You can not complain if you do not spend the money on the important ships?

Admiral ROBISON. No, sir.

Mr. KELLEY. Of course, you were not responsible for the ships in commission; you had to repair the ships they were using?

Admiral ROBISON. I have nothing to say as to that, of course.

Mr. KELLEY. That is what we are trying to do—trying to work this thing better. These are hard times in the country. Congress wants you to have the money that is necessary to repair and keep in good shape the ships that you would use if you were in trouble. We are anxious to do that.

Admiral ROBISON. See the list that I gave you.

Mr. KELLEY. Yes, sir. Of course, we have all the same idea in mind. I have been impressed the last five or six years more and more all the time that the Navy was just swamping itself with trying to keep up stuff which was not any good. If you and the other officers, in conjunction with the Secretary and the Assistant Secretary, would just make one grand slaughtering of this stuff that does not contribute to the national defense, stop repairing it, stop burning oil on it, and stop putting engines in it, the country would be perfectly willing to support the fighting part of the Navy, and there would not be a particle of difficulty about the appropriations.

Admiral ROBISON. I believe you.

Mr. KELLEY. I believe that if we can all work that out together this year, we will have saved the taxpayers on the one hand and at the same time we will have given the Navy everything that is necessary to make it effective. We want to give you the men and the money for repairs, but not until after you have taken out the deadwood, the junk, and the old stuff that really does not contribute much to the national defense. You can see how it runs into terrific sums of money.

Admiral ROBISON. It is worth while that you should note this list here; that is something that is an order to me.

Mr. KELLEY. That is all right. You have given us the best basis for making up your appropriation that could possibly be given. You have given it by the unit, and when we determine in conjunction with the Secretary just what ships we will appropriate for—of course, that does not mean that these ships will have to be run, but it approximates the same—your table will give us the necessary data to furnish the money.

Admiral ROBISON. I should like to invite your attention to the fact that on the ships on this list that are shown in full commission there are now on hand \$1,113,500 worth of repairs to be accomplished on the machinery. There are \$4,841,553 worth of alterations that have been ordered.

Mr. KELLEY. I suppose that human nature runs pretty constant and that every manufacturer runs up against the same thing. The experts in charge of the various machines in the different departments will suggest to him repairs and improvements that would swamp the factory if the manufacturer were to carry them all out.

Secretary DENBY. I recall distinctly that an order went out a long time ago that nothing whatever but military repairs would be put on these ships.

Mr. KELLEY. That is right.

Secretary DENBY. We are trying our best to do exactly what you are talking about. It all passes through the bureau, and if the repair is not deemed a military repair it is disapproved.

Mr. KELLEY. When the admiral brings in a paper and says I request that, that does not signify anything?

Admiral ROBISON. I do not do that.

Mr. KELLEY. What you do is put it up to him as being necessary?

Admiral ROBISON. No, sir. There is no order issued until it has been gone over and studied.

Mr. KELLEY. The Secretary has to take your word for it?

Admiral ROBISON. I have never had a chance to make a recommendation to him that any repairs or alterations be authorized.

Mr. KELLEY. You make it to the Secretary, your immediate chief?

Admiral ROBISON. I have never made one to the Secretary.

Mr. KELLEY. Where does he get this information?

Admiral ROBISON. There is never one job authorized directly upon the recommendation of any bureau chief. I know that every one of our recommendations in that line is revised prior—they go to the Chief of Operations and they have been radically reduced.

Mr. KELLEY. I do not know the machinery. The Chief of Operations is in control of the fleet.

Admiral ROBISON. The result of that is that the amount of authorized alterations has been cut down to include what has been approved by the bureaus concerned in the past and what have been passed upon by the military officers as essential for military reasons on the ship. They are not being done and they are probably not going to be done until they have to be done on account of war. When war comes, these ships will not be ready until the \$6,000,000 has been spent. That is all there is to it.

ENGINEERING COST PER HORSEPOWER.

Secretary DENBY. Admiral, you did not complete your statement as to the relative cost per horsepower in a well-conducted merchant marine establishment as against the cost in the Navy.

Admiral ROBISON. There is a well-known ship company that has 19,000-ton single-screw, quadruple expansion tanker of 2,900 horsepower, and the annual engineering cost of that vessel is \$19.96 per horsepower. That same company operates a twin-screw triple expansion tanker with an annual engineering cost of \$16.17 per horsepower. That is the most successful ship-operating concern in the United States. Those ships were having a high cost, because they were tankers and were being driven hard. They were operating practically at full power, and those costs are not correct for usual merchant service costs. The usual merchant-ship practice is to allow \$10 per horsepower per annum for repairs to their ships. In the steel mills, where we have the heaviest and most massive machinery there the cost per horsepower is higher per annum than it is in the Navy.

Mr. KELLEY. But they run all the time.

Admiral ROBISON. No, sir; I wish they did, but they do not.

Mr. KELLEY. When they do not operate, they do not allow that cost.

Admiral ROBISON. No, sir; but that is the cost just the same. Their cost exceeds ours.

The CHAIRMAN. The movement of that machinery is much greater than the movement of a battleship.

Admiral ROBISON. That is the only way possible. We have the lightest machinery in the world, and the most delicate apparatus. That was the difference between a quadruple-expansion and a triple-expansion engine operating under similar conditions, one costing 40 per cent more than the other. It was an improved machine and used less fuel but its repairs cost more. We have the most efficient machinery in the world.

Mr. FRENCH. How does the efficiency compare there as to fuel consumption, or is there any way by which you could compare that?

Admiral ROBISON. There is no ship in the world that touches the fuel-operating efficiency that we are getting from our latest battleships.

The CHAIRMAN. That is due to the fact that you put in material that is so much more expensive than the material that goes into the other machinery. If your first cost were added to the cost of the repairs it would more than offset the cost of maintaining their machinery. I know something about machinery.

Admiral ROBISON. Obviously, because if it were not that way it would be the commercial practice to use the type of machinery that we use.

Mr. FRENCH. How does your efficiency in the use of fuel compare with theirs?

Admiral ROBISON. That is what I am referring to.

Mr. KELLEY. You mean efficiency of the engine and not of the crew. Do your engines, operating normally, use less fuel than the commercial ships use?

Admiral ROBISON. Yes, sir. We are using less on these last battleships than they use on commercial ships. While our destroyers are operating with higher efficiency, as compared with the commercial ships, their machinery is so light and fragile, and it must be kept so clean, and you must put so much care upon it to prevent loss through deterioration, that our maintenance costs must be high. We avoid that high cost by doing the work aboard ship with the ship's force. The men on shipboard do most of the work. A man who was a farmer two years ago is a mechanic to-day, and, really, that is the way our ships are being maintained.

Mr. KELLEY. Somebody made the estimate awhile ago that it would cost about \$12,000,000 for the ships of the Navy if they were in commission and were just lying up at the docks with the necessary fire in the boilers. If the efficiency that Admiral Strauss has put into effect with regard to the destroyers out there were made uniform throughout the Navy, it would reduce that cost from \$12,000,000 to \$6,000,000.

Admiral ROBISON. No, sir. It would, so far as those destroyers go, yes, sir; and that has been in operation at Charleston and San Diego. The battleship *Nevada* six years ago used 241 gallons of fuel oil per hour in port, summer time, and now she is using in winter 195 gallons per hour. There is an improvement that is absolutely due to operation in the ships. That may come from better training of the personnel, from improved apparatus supplied to the ships.

d better engineering. It comes, I believe, from better training and better supervision by the officers of the ships. The latest ships are doing much better. The *Tennessee* is using 115 gallons of oil per hour.

Mr. KELLEY. We may want you to come up when we reach the appropriation for fuel.

Admiral ROBISON. I will come up.

PAY OF CLASSIFIED FORCE.

(See p. 533.)

Mr. KELLEY. Let us go back to the classified service. You ask for \$665,212.06. How much in addition to that are you asking?

Admiral ROBISON. Nothing else. That is the classified force. Those figures include some classified force I have already given you. You will look in the report of the Paymaster General, from which those figures were obtained, you will note under "cost of commissioning" a considerable amount that is set aside for overhead.

Mr. KELLEY. On page 62 of the bill there is a limitation of 500,000 for classified service. How much can we reduce that are in the bill?

Admiral ROBISON. You can reduce it to \$1,850,000. If you cut that figure so that I have got to stop the collection of information, will cut the possibilities for making improvements in operations.

Mr. KELLEY. We do not want to do anything that will reduce its efficiency.

Admiral ROBISON. If you cut down the number of the navy yards commission, that figure will fall automatically.

Mr. KELLEY. Of course you know as much as anybody about the needs of the Navy Department in regard to the navy yards. How much would you say this could be cut by reason of what you know in that respect?

Admiral ROBISON. I would not say anything. I do not know that they will close any navy yards; do you?

Mr. KELLEY. No. If the navy yards were reduced in their activities, would not that make some difference?

Admiral ROBISON. No, sir; the cost of doing nothing is very great.

Mr. KELLEY. If you close down certain units—

Admiral ROBISON (interposing). They are cutting them; but that does not affect the classified force. That affects the foremen or the supervisory forces. The classified force can not be cut down much except by closing the yards, and that is really about all that the saving will gain you.

Mr. KELLEY. What do you mean by that?

Admiral ROBISON. If you close a navy yard, your net gain will be the classified force of the yard.

Mr. KELLEY. You have the mechanics?

Admiral ROBISON. No, sir; because you will have them at work. They are doing work and are doing good work. It does not matter which yard they are in, because you will have to move them from one place to another.

Mr. KELLEY. You would not discharge any of them?

Admiral ROBISON. We are not doing any unnecessary work.

Mr. KELLEY. But if you take all of those craft out of commission——

Admiral ROBISON (interposing). That appears in the decreased amount you have set aside already under these titles.

Mr. KELLEY. The classified service, you think, would not be changed as long as the yards were not closed?

Admiral ROBISON. I am sending out letters telling them to cut, but they do not seem to cut much.

Mr. KELLEY. They will not until you actually tell them to stop.

Admiral ROBISON. We will have to close yards before we can make much difference in the number of the classified employees. Every time you close a navy yard it will save the Government about \$1,500 per day.

Mr. KELLEY. In the classified service?

Admiral ROBISON. I suppose so, taking all appropriations affected into consideration.

TOTAL NUMBER OF EMPLOYEES IN NAVY YARDS.

Mr. KELLEY. Who has the information as to the total number of employees in each navy yard?

Admiral ROBISON. The Assistant Secretary.

Mr. KELLEY. Colonel Roosevelt, will you put in Admiral Robison's statement at this point a statement showing the number of employees in the navy yards, yard by yard, as of the last available date?

Colonel ROOSEVELT. I will do so.

Mr. KELLEY. I am referring to the classified employees.

Colonel ROOSEVELT. In the industrial yards?

Mr. KELLEY. Yes; in all the navy yards.

Secretary DENBY. Do you want that information for the shore stations in addition to the navy yards?

Mr. KELLEY. I suppose we had better have it complete, and then we will know the total number of civilian employees in the Navy.

Colonel ROOSEVELT. We will get that statement up.

Mr. KELLEY. Put in a table that will illuminate the situation as to the civilian employees outside of the Navy Department, and who are paid for out of naval funds.

Colonel ROOSEVELT. That will be supplied.

NOTE.—This table will appear at end of hearings.

NAVAL PETROLEUM RESERVES.

Admiral ROBISON. There is one item I would like to ask you about, and I have authority from the Secretary to ask about it, and that is this: In the purposes of the appropriation for Engineering I wish you would include specifically the care and preservation of the naval petroleum reserves. That is something that has hitherto been under the Interior Department. You turned over to them the work in connection with those reserves, but it is not included in the appropriation for the Interior Department. I received notice from Secretary Fall that it was decided that it should be included in the naval appropriation bill, because it is a naval activity that he is performing for us. It is on the same principle of an activity performed by one

department for another. The Secretary has designated me as the person to take charge of that work. If you put in a separate item for it, I would like to have \$100,000 authorized, because it may cost much; but if you do not put in a separate item and include it for the purposes for which the "engineering" appropriation is made, I would like you to add \$50,000 to the total sum, because that is all I hope to limit it.

Mr. FRENCH. I think that the admiral ought to submit the language which is necessary in order to cover this matter. The Interior Department committee cut it out of that bill, feeling that it was a charge which ought to be carried by the Navy.

Admiral ROBISON. The added item should read: "To provide for care, custody, and operation of the naval petroleum reserves."

Mr. KELLEY. It was estimated for in another bill and was cut out of it?

Mr. FRENCH. We cut it out absolutely. The Interior Department, through the Bureau of Mines, has offered to do the work. We did not challenge that, but we felt that the expense should be borne by the department that receives the benefit.

Mr. KELLEY. Why do you want \$100,000?

Admiral ROBISON. They are opening two reserves considerably. The reserves that were in the ground were being drained by outside forces, and it has become necessary in order to preserve them to pump them out.

Mr. KELLEY. What do you want with the \$100,000?

Admiral ROBISON. To allot to the Secretary of the Interior.

Mr. KELLEY. What will he do with it?

Admiral ROBISON. I do not know.

Mr. KELLEY. Who has the details of the \$100,000 estimate?

Admiral ROBISON. That would be under Secretary Fall. He has spent \$15,000 during the last four months. He is opening up another reserve, and I figure that next year he probably will spend something in excess of \$50,000. It might be \$100,000.

Mr. KELLEY. It is all for the employment of people?

Admiral ROBISON. It is all for people; yes, sir.

Mr. KELLEY. Are they expert people or ordinary employees?

Admiral ROBISON. I have now one naval officer on the retired list, Captain Landis, who is employed, and I had calculated to dispense with his services, because I did not think there was any use in our having another man there. He is the only expert that I have had anything to do with.

Mr. KELLEY. The Interior Department has made all the arrangements for the help, but you do not know how much they require? Do you not know how many people they will employ?

Admiral ROBISON. No, sir.

Mr. FRENCH. Probably I should say that the Admiral stated, when he was talking off the record, that the Interior Department, through the Bureau of Mines, is charged with the responsibility under the act of gauging the oil as it comes out, and reporting that which should be a royalty to the Government. Necessarily that work must be kept up to date if the Government is going to receive the revenue which it should receive from the royalties.

Mr. KELLEY. I know about the purpose, but I want to know the number of men to be employed, and at what wages?

Mr. FRENCH. That depends upon the amount of oil.

Mr. KELLEY. Somebody has made an estimate covering a certain number of men at certain prices.

Admiral ROBISON. I do not know that an estimate of any kind has been made.

Mr. KELLEY. How did you guess at the \$100,000?

Admiral ROBISON. I guessed at it because they had \$15,000 in the last four months.

Mr. KELLEY. What did they do with the \$15,000 they drew during the past four months?

Admiral ROBISON. I do not know.

Mr. KELLEY. We are very much obliged to you for your statement.

SATURDAY, MARCH 18, 1922.

BUREAU OF CONSTRUCTION AND REPAIR.

STATEMENTS OF REAR ADMIRAL DAVID W. TAYLOR, CHIEF, AND MR. HENRY C. BRUNNER, CHIEF CLERK.

ALLOCATION OF ESTIMATES BY CLASSES FOR 1923.

Mr. KELLEY. We have with us this morning Admiral Taylor, Chief of the Bureau of Construction and Repair, and his assistant. Under the Bureau of Construction and Repair you have an appropriation for this current fiscal year of \$22,500,000 for the construction and repair of vessels. How much do you estimate you will need next year?

Admiral TAYLOR. The estimate is \$20,000,000.

Mr. KELLEY. Have you the details of that?

Admiral TAYLOR. Yes, sir. That estimate was arbitrarily reduced from \$24,500,000, which was our real estimate. We figured for an expenditure on vessels in commission of \$14,200,000.

Mr. KELLEY. How is that divided by classes?

Admiral TAYLOR. For the battleships in full commission the estimate is a little over \$2,400,000; for flagships the estimate is \$280,000; that is, for five flagships, independent of the battleships that are flagships. We figured at that time on four light cruisers, but that has been reduced to three, for which the estimate is \$200,000. For destroyers in full commission, the estimate is \$1,000,000.

Mr. KELLEY. How many destroyers did you figure on there?

Admiral TAYLOR. On 65 in full commission. For destroyer tenders the estimate is \$288,000.

Mr. KELLEY. The cost is more for tenders than for destroyers?

Admiral TAYLOR. Yes, sir; the tenders are much larger ships and much more expensive ships than the destroyers.

Mr. KELLEY. There are only 5 or 6 of them.

Admiral TAYLOR. There are 8 of them, or we have 8 on this list. For 81 submarines, the estimate is \$1,300,000, and for 6 submarine tenders, the estimate is \$210,000. In addition to that, there a number of submarine tenders at shore bases, and the estimate there amounts to about \$75,000. For 2 mine layers, the estimate is \$80,000, and

or 14 light mine layers, or those that were converted from destroyers, the estimate is \$560,000. For 16 mine sweepers, the estimate is 190,000; for 2 aircraft tenders, the *Aroostook* and the *Wright*, which represent a new type of vessels, the estimate is \$85,000 for both. As regards the *Wright*, we do not know what the estimate should be, but we figure that the cost will be about \$85,000 for the two. For 2 repair ships, the estimate is \$64,000; for 2 hospital ships, \$120,000; target repair ships, \$60,000; 2 ammunition ships, \$80,000; 5 store ships, \$280,000; 18 oilers, \$640,000; 5 colliers, \$300,000; 13 transport and cargo vessels, \$700,000; a radio repair ship, \$40,000; 17 patrol vessels, mostly gunboats, \$200,000; one survey ship, \$20,000; 2 Fish Commission ships, the *Fish Hawk* and *Albatross*, \$12,000; 12 special-duty vessels, \$70,000; 30 fleet tugs, \$360,000; 60 harbor tugs, 240,000; 25 Eagle boats, \$4,000 each, \$100,000; 45 subchasers, \$4,000 each, \$180,000; and 30 miscellaneous vessels amounting to about 100,000. That makes the total for the vessels in commission about 10,400,000, although that is not the exact amount.

For vessels in reduced commission, the estimates are as follows: One experimental ship, either the *Michigan* or the *South Carolina*, \$32,000; the cruiser *Charleston*, \$20,000; 21 submarines, \$84,000; 2 mine sweepers, \$48,000; and 213 destroyers, \$2,550,000.

For vessels out of commission we figure, in round numbers, 1,000,000.

Mr. KELLEY. Without any details?

Admiral TAYLOR. Without any details. That makes the totals for vessels \$14,000,000, in round figures.

ALLOTMENTS FOR BATTLESHIPS.

Mr. KELLEY. What is the average for each battleship—\$150,000?

Admiral TAYLOR. \$170,000 is the regular figure on each battleship.

Mr. KELLEY. You have 18 battleships?

Admiral TAYLOR. \$170,000 is the proper figure on each battleship. We have arbitrarily reduced those estimates by 20 per cent, and the reduced figure is \$136,000.

Mr. KELLEY. You are asking \$2,400,000 for how many battleships?

Admiral TAYLOR. That is about 18.

Mr. KELLEY. That would be about \$133,000.

Admiral TAYLOR. \$136,000 on the 20 per cent basis.

Mr. KELLEY. You are taking 20 per cent off?

Admiral TAYLOR. I want to explain that figure of \$170,000. Our estimates were arbitrarily cut 20 per cent, because our estimates were really \$24,500,000, and were arbitrarily cut to \$20,000,000; \$24,500,000 is what we really need in order to carry on the work properly, and we probably will have to let battleships go unrepaired to some extent. Those estimates were based on the operating plan at that time. They were submitted last September.

ALLOTMENT FOR CRUISERS.

Mr. KELLEY. Have you the names of the five flagships?

Admiral TAYLOR. Yes, sir; the *Rochester*, the *Olympia*, the *Huron*, the *Connecticut*, or the *Seattle*, and the *Birmingham* or the *Columbia*.

Mr. KELLEY. The *Olympia* is not to be continued, is it?

Admiral TAYLOR. She was in the operating plan at that time.

Mr. KELLEY. If we reduce that number to four, and the *Olympia* is taken out, what would that take off in the way of flagships, or how much would that reduce the estimate?

Admiral TAYLOR. With the *Olympia* out, it would reduce it about \$80,000.

Mr. KELLEY. You have \$280,000 for the five, and the *Olympia* is one of the largest of them?

Admiral TAYLOR. We have six, but I presume the *Columbia* is out. She was included last September.

Mr. KELLEY. You would have four instead of six by taking the *Olympia* out.

Admiral TAYLOR. It would make the estimate about \$200,000.

Mr. KELLEY. Now, the three cruisers are the three new ones?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Do you think you will need \$200,000 for them next year?

Admiral TAYLOR. They always need a great deal the first year. The first year after a vessel is in commission there are changes to be made, and we do not charge up to the cost of the ship any changes that are necessary after it goes into commission. We do not charge up anything to the first cost of a ship after the ship is in commission.

Mr. KELLEY. You would not take off anything there?

Admiral TAYLOR. They are a new type of ship, and are to some extent experimental. They are entirely new types in our service, and I expect that developments will require some considerable expenditure upon them.

ALLOTMENT FOR DESTROYERS.

Mr. KELLEY. Suppose instead of having 65 destroyers in commission, you had 103: How much would that increase that estimate?

Admiral TAYLOR. Do you mean in full commission?

Mr. KELLEY. Yes.

Admiral TAYLOR. We figure that we should have \$20,000 for each destroyer in commission.

Mr. KELLEY. You have only \$1,000,000 down for 65.

Admiral TAYLOR. We arbitrarily reduced those figures as we went along, and we did not suppose that we would be able to operate those destroyers on four-fifths of what we needed for them. Our estimates were originally nearly \$25,000,000, and they had to be cut.

Mr. KELLEY. Suppose you had 38 more destroyers?

Admiral TAYLOR. That would mean \$760,000.

Mr. KELLEY. We have 103 destroyers already rigged up and ready for business.

Admiral TAYLOR. I was going back to the question of the scouts.

Mr. KELLEY. So you will need that for outfits as well as repairs?

Admiral TAYLOR. Yes, sir; and we must allow a certain sum of money to send for maintenance.

Mr. KELLEY. If you have 103 destroyers in commission, we will have to add \$760,000. Now, suppose you had all the other destroyers out of commission, as the Secretary contemplates doing with a number of them, or if you had them laid up completely, white leaded, greased, and painted, and laid away, what would be the difference?

Admiral TAYLOR. There would still be some expense for them.

Mr. KELLEY. How much would it take out of the estimate for those reduced commission?

Admiral TAYLOR. We figured \$15,000 for reduced commission.

Mr. KELLEY. \$15,000 for each one?

Admiral TAYLOR. Yes, sir; because they are operating with a force.

Mr. KELLEY. Well, if they are out of commission entirely?

Admiral TAYLOR. If they are out of commission entirely, the expenditures will be comparatively small the first year, except for ship keepers to look after them.

Mr. KELLEY. That is a rather small item coming out of "Pay of the Navy," is it not?

Admiral TAYLOR. No, sir; they come out of our appropriation.

Mr. KELLEY. How much would it amount to per destroyer?

Admiral TAYLOR. That alone would amount to about eleven or twelve hundred dollars apiece, assuming that you had one ship keeper on three destroyers. We have not had enough experience in that to give you a fair estimate, but that would not be far off from what it could be. A ship keeper works 365 days in the year, caring for three ships, at \$3.28 per day, and three are required to cover a 24-hour day.

Mr. KELLEY. You would have 276 destroyers.

Admiral TAYLOR. No, sir; not as many as that. There would be 175.

Mr. KELLEY. We have 278 altogether, and if you take out 103, it would leave 175 out of commission.

Admiral TAYLOR. That would mean \$180,000 for ship keepers alone.

Mr. KELLEY. What other expense would there be?

Admiral TAYLOR. The condition as to the ship would be the same as if you shut up your house and went away. A window might be broken, a storm would come along, the roof might leak, and if we had exceptionally bad weather, perhaps they would have to clean the roof off.

Mr. KELLEY. \$250,000 would cover it?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Then, you could take off \$2,250,000 from your reduced commission appropriation, if we laid up that many, and you would add \$760,000 at the other place?

Admiral TAYLOR. Is that the way it figures out?

Mr. KELLEY. Is that right?

Admiral TAYLOR. Yes, sir.

ALLOTMENT FOR DESTROYER TENDERS.

Mr. KELLEY. Now, you figure on eight destroyer tenders, and on the new basis suppose you figure on six destroyer tenders. You will have 103 in commission, making 19 for each squadron and there would be five squadrons. If you had five squadrons with 19 in each squadron, that would take 95, and if you add eight for the Mediterranean service, it would make up the 103. They would require six tenders, would they not?

Admiral TAYLOR. We put the tenders down at \$45,000. We are getting mixed up, because the figures which I have given you were given to explain that \$20,000,000 estimate. Our estimate was arbitrary.

trarily cut, and I would rather have you figure on what we need when you attempt a reduction, because when you attempt reduction it should be borne in mind that we have already arbitrarily reduced the estimate.

Mr. KELLEY. We can make that adjustment at the end. You have figured on eight tenders before you made the cut?

Admiral TAYLOR. The proper allowance for tenders, as well as can figure from previous experience, is \$40,000 each.

Mr. KELLEY. This \$288,000 is at the rate of \$36,000 apiece.

Admiral TAYLOR. That was after the 80 per cent had been applied.

Mr. KELLEY. Suppose we make the reduction wherever we can on the numbers, and then adjust the 20 per cent at the end. We can do that better on the total.

ALLOTMENT FOR SUBMARINE TENDERS.

Admiral TAYLOR. If you could give me the new numbers I think I could tell you.

Mr. KELLEY. If 86 submarines were kept in full commission would not change the figure very much?

Admiral TAYLOR. Not appreciably; no, sir.

Mr. KELLEY. And six submarine tenders?

Admiral TAYLOR. That changes it about \$100,000.

Mr. KELLEY. That would make \$100,000 more?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. How many submarine tenders have they asked for? figure on?

Admiral TAYLOR. Seven, sir.

Mr. KELLEY. Was this \$210,000 for seven? I think you said that as you went down the list, but the number appears to be seven?

Admiral TAYLOR. I did say six and it was seven at the shore base; that was for the reduced submarine tenders, and the amount shot was \$45,000.

Mr. KELLEY. Just leave your figures as they are and we will figure at the end whatever reduction you have made. You have reduced it somewhat to make your \$210,000 for seven?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. You spoke about shore base submarine tenders. How many were there of those?

Admiral TAYLOR. There were seven, sir.

Mr. KELLEY. Where are they located?

Admiral TAYLOR. At the headquarters of the submarines, Naval Station, London, Hampton Roads, Key West, Coco Solo, San Pedro, Puerto Rico Harbor, and Cavite.

Mr. KELLEY. I think they have spoken of only five here?

Admiral TAYLOR. They spoke of five vessels.

Mr. KELLEY. What was your figure for the submarine tenders?

Admiral TAYLOR. \$45,000.

Mr. KELLEY. What was the total you gave on the first list?

Admiral TAYLOR. It was 80 per cent of \$270,000, or \$216,000.

Mr. FRENCH. Is that for seven?

Admiral TAYLOR. That is for six, reduced 20 per cent.

Mr. KELLEY. If you reduced the number and the amount both, it would reduce it double. Which did you do?

Imiral TAYLOR. The first operating plan contemplated six at 100 and I reduced that \$38,000 each as I went along in order to be 20 per cent off.

. KELLEY. Is this \$216,000 for seven?

Imiral TAYLOR. That was for six on the original list.

. KELLEY. You originally had \$45,000 for seven, had you?

Imiral TAYLOR. No, sir; I originally had \$45,000 for six.

. KELLEY. Which do they want you to provide for—six or 1?

Imiral TAYLOR. The revised list is seven, and I think you have list there.

. KELLEY. That would be \$315,000 less one-fifth, so as to get all on the same basis?

Imiral TAYLOR. Yes, sir.

ALLOTMENT FOR MINE LAYERS.

. KELLEY. That would be \$252,000 as I figure it. Shore base ers \$75,000; 2 mine layers, the *Aroostook* and *Shawmut*, and ine layers?

Imiral TAYLOR. Those are the light mine layers.

. KELLEY. They reduced those to 10 when they discussed the er with us.

Imiral TAYLOR. I have four.

. KELLEY. You said 14.

Imiral TAYLOR. Fourteen in all, but that has been reduced to on the list I have.

. KELLEY. So the amount is not \$560,000, as you gave it before?

Imiral TAYLOR. That was for 14, the original estimate.

. KELLEY. Let us reduce that to 10, just as they want it; much will that be?

Imiral TAYLOR. That will take off \$160,000 on that basis.

ALLOTMENT FOR MINE SWEEPERS.

. KELLEY. You have 16 mine sweepers and they ask for 10?

Imiral TAYLOR. Yes, sir.

. KELLEY. How much will that take off of the \$190,000?

Imiral TAYLOR. \$40,000 if you allow \$15,000 per mine sweeper.

ALLOTMENT FOR AIRCRAFT TENDERS.

. KELLEY. Two aircraft tenders?

Imiral TAYLOR. That is reduced to one.

. KELLEY. How much will that be?

Imiral TAYLOR. \$55,000.

. KELLEY. It takes \$55,000 off?

Imiral TAYLOR. No; it remains \$55,000.

. KELLEY. Keep to your percentages or we will not be able to an adjustment at the end; we will not be able to make an tment if you try to correct that 20 per cent as you go along on and not on others, and when we try to correct it at the end we be at sea.

Imiral TAYLOR. That is true.

. KELLEY. So do not do it, but keep to your figures and we will an adjustment at the end.

Admiral TAYLOR. I will try to do so.

Mr. FRENCH. Are these two tenders of different sizes and do they have a different cost for repair?

Admiral TAYLOR. Yes, sir.

Mr. FRENCH. One \$55,000 and the other \$30,000?

Admiral TAYLOR. Yes, sir; but the trouble is I took off one tender at \$55,000 and did not take 20 per cent off.

Mr. KELLEY. Repair ships?

Admiral TAYLOR. There is the aircraft carrier which I did not mention in the original statement. The *Langley* is going to be commissioned.

Mr. KELLEY. The two aircraft tenders would just about equal the aircraft carrier?

Admiral TAYLOR. It will be a little more than for the tenders; put her at \$60,000.

Mr. KELLEY. That adds \$60,000?

Admiral TAYLOR. Yes, sir.

ALLOTMENT FOR REPAIR, AMMUNITION, AND STORE SHIPS.

Mr. KELLEY. Two repair ships?

Admiral TAYLOR. That is reduced to one.

Mr. KELLEY. Well, they asked for two, but we will let that go.

Admiral TAYLOR. We have not quite the same list.

Mr. KELLEY. We have had every kind of a list and I am trying to adjust this thing. We have been trying to get a list of the vessels they would keep in commission for 65,000 men, but we have not been able to get it yet. Two hospital ships, \$120,000; two target ships, \$60,000; two ammunition ships and five store ships; I struck all of those off but three when we went over the list, the *Brooklyn*, the *Arctic*, and the *Rappahannock*.

Admiral TAYLOR. That would be three-fifths.

Mr. KELLEY. That would be \$125,000 off?

Admiral TAYLOR. Yes, sir.

ALLOTMENT FOR FUEL SHIPS.

Mr. KELLEY. Eighteen oilers, but they are asking for only 12 oilers. You probably would not want that many if they do not have all of those destroyers in reserve.

Admiral TAYLOR. That is 60 per cent.

Mr. KELLEY. You could just about cut that in two?

Admiral TAYLOR. No; 60 per cent.

Mr. KELLEY. Take 40 per cent off?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. \$256,000. When did they give you the list as it was for 18 oilers?

Admiral TAYLOR. That was last September, sir; and there was a practical change in it between July and September.

Mr. KELLEY. Four colliers are all they intend to keep in commission. That would take off \$60,000?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Is the *Ajax* in your list?

Admiral TAYLOR. No, sir; she is not in the list.

ALLOTMENT FOR TRANSPORTS.

Mr. KELLEY. You have four transports?

Admiral TAYLOR. We originally had 13 transports and cargo vessels.

Mr. KELLEY. And they are asking for 11 now. They are asking for the *Henderson*, *Argonne*, and *Chaumont*. They are transports?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. And the *Kittery*, *Newport News*, *Bath*, *Capella*, *Virius*, *Vega* and *Beaufort*.

Admiral TAYLOR. That leaves out the *General Alava*.

Mr. KELLEY. They have the *General Alava* in another place. That is a ship that hardly rises to the dignity of a collier.

Admiral TAYLOR. That is a cargo vessel.

Mr. KELLEY. Or a cargo vessel, either. Suppose you figure the transports, the *Henderson*, *Argonne*, and *Chaumont* with the eight I named, or really seven, because the *Pensacola* is a station ship at Guam.

Admiral TAYLOR. The *Pensacola* is not in this list.

Mr. KELLEY. Then figure the seven.

Admiral TAYLOR. That would be \$560,000 all told.

Mr. KELLEY. \$140,000 off?

Admiral TAYLOR. Yes, sir.

ALLOTMENTS FOR GUNBOATS AND PATROL VESSELS.

Mr. KELLEY. Are the gunboats and patrol vessels together?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. They have given us 14?

Admiral TAYLOR. They are all classed as patrol vessels and the number is reduced from 17.

Mr. KELLEY. They keep the *Mayflower* in, of course?

Admiral TAYLOR. We have her as a special duty vessel with the *Albany*, the *Denver*, the *Isabel*, the *Niagara*, the *Quiros*, the *Villalobos*, the *Asheville*, the *Galveston*, the *Monocacy*, the *Palos*, the *Sacramento*, the *Wilmington*, the *Cleveland*, the *El Cano*, the *New Orleans*, the *Pampanga*, and the *Tacoma*.

Mr. KELLEY. That is practically the list. They give on the Yangtze Patrol, the *Wilmington*, the *Palos*, the *Monocacy*, the *El Cano*, the *Quiros*, and the *Villalobos*; in the Asiatic Fleet the *Sacramento*, the *Asheville*, and in the South China Patrol the *Pampanga*, and they added to that the *Mayflower*, the *Vixen*, the *Sylph*, the *Nokomis*, and *Isabel*.

Admiral TAYLOR. We have the *Isabel* on another list, and what they have done is to combine the patrol vessels with the special duty vessels.

Mr. KELLEY. That makes 14 instead of 17. It is not a very large item and suppose we let it stand?

Admiral TAYLOR. I think you had better, sir.

Mr. KELLEY. One survey ship?

Admiral TAYLOR. I think she is out.

ALLOTMENTS FOR SPECIAL DUTY CRAFT.

Mr. KELLEY. The *Hannibal*; that is all right. The two Fish Commission vessels are all right. What about these special duty craft? That is where you have the *Mayflower*, is it?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Then that other list is pretty large?

Admiral TAYLOR. I think the special duty craft practically all go out.

Mr. KELLEY. No; we have here the *Mayflower*, the *Vixen*, the *Sylph*, the *Nokomis*, and the *Isabel*. They are all classed as special duty craft.

Admiral TAYLOR. We have the *Isabel* classed as a patrol vessel.

Mr. KELLEY. They put these all down as patrol vessels?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. And then there were four or five little ones requiring 30 or 40 men apiece, like the *Osceola*. Is she on your list?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. The *Scorpion*, however, is quite a ship?

Admiral TAYLOR. She is the station ship at Constantinople.

Mr. KELLEY. We will just let that go. The 12 special duty craft would be reduced to about 5?

Admiral TAYLOR. Yes, sir; and there would be a saving of about \$30,000 or \$40,000.

Mr. KELLEY. The 30 fleet tugs were reduced to 23?

Admiral TAYLOR. That would be about \$80,000, sir.

Mr. KELLEY. What about these 16 harbor tugs? We have not heard of them before, have we? They are included in the shore station establishments but you have to keep them in repair, do you?

Admiral TAYLOR. Yes, sir. They are classed as harbor craft in the new list.

Mr. KELLEY. They are manned by civilians, are they?

Admiral TAYLOR. Not now; no, sir. I am pretty sure that they are not, some may be.

Mr. KELLEY. They would come in under our shore establishments?

Admiral TAYLOR. Yes; they come in under the men ashore.

Mr. KELLEY. Twenty-five Eagle boats. If you do not repair any of them you can take off \$100,000, can you not?

Admiral TAYLOR. If we do not repair any of them; yes, sir.

Mr. KELLEY. And if you do not keep up any subchasers you can take off \$180,000?

Admiral TAYLOR. That is right; but we still have some subchasers.

Mr. KELLEY. It is our hope that you will not run any of those any longer, and if we do not give you any money for them that will be a pretty good excuse for not running them.

Admiral TAYLOR. They are dwindling very fast.

Mr. KELLEY. The faster the better.

Admiral TAYLOR. The Eagle boats are very popular with the Naval Reserve. I understand.

Mr. KELLEY. At that rate that saves the Government \$3,525,000; taking that off of the amount you gave, \$14,214,000, would reduce it to \$10,689,000; if you added 20 per cent to that it would be about \$2,000,000 making \$12,000,000?

Admiral TAYLOR. Yes, sir; but have you made allowance for the vessels out of commission?

Mr. KELLEY. We will go down through those. You see, the destroyers made the big item in that and we adjusted that. Suppose you put these 41 subchasers entirely out of commission, how much could you cut off of the \$164,000?

Admiral TAYLOR. We have already cut them out, sir; you cut out entirely any figure for the Eagles and subchasers.

Mr. KELLEY. Why do you want to keep 12 mine sweepers in reduced commission after we have given you all those up above?

Admiral TAYLOR. That was the list upon which we figured.

Mr. KELLEY. That is what you had before, but they have not asked for those this year?

Admiral TAYLOR. They were in the operating plan upon which we estimated in September.

ALLOTMENT FOR SHIPS OUT OF COMMISSION.

Mr. KELLEY. How did you arrive at the \$1,000,000 for your part of the ships that are out of commission entirely?

Admiral TAYLOR. We figured that on the new list we will need 1,500,000 for the vessels out of commission.

Mr. FRENCH. Will that include those which we have just mentioned as being removed from these two lists?

Admiral TAYLOR. All told, yes, sir; on the new basis.

Mr. KELLEY. How did you figure that?

Admiral TAYLOR. We figured the ship keepers and a certain amount of repairs and maintenance on vessels out of commission. We figured it the best we could but we have had no reliable data in the past.

Mr. KELLEY. You would not expect to spend much in the way of repairs?

Admiral TAYLOR. Yes, sir; because things are apt to go wrong at any time; they spring a leak; the drainage pipes get a hole in them; they have to be docked every now and then; there is a certain amount of expense which we can not avoid.

Mr. KELLEY. The \$1,000,000 you speak of is only for what might be needed to keep them in status quo after they have been put out of commission?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. It does not include anything for putting them out of commission?

Admiral TAYLOR. We have made no separate estimate for that. The majority of them will be put out of commission—

Mr. KELLEY (interposing). During this year?

Admiral TAYLOR. Yes, sir; but many of them will go out of commission with their boats and other things of that kind depleted.

Mr. KELLEY. That is a good way to have them go out, is it not?

Admiral TAYLOR. No, sir; they ought to have their equipage.

Mr. KELLEY. I mean outside of the destroyers?

Admiral TAYLOR. They ought to have their equipage available.

Mr. KELLEY. On the destroyers?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. But not as to all of these other ships?

Admiral TAYLOR. I was thinking more of the destroyers in that equipage matter.

Mr. KELLEY. Of course this involves laying up minor ships quite a wholesale way, but we had to do something with them.

Colonel ROOSEVELT. That was the hypothetical proposition 65,000 men.

Mr. KELLEY. The list of ships that we practically agreed up. We did have some dispute about how many men it would take man them. We have not been discussing anything but the list ships agreed on.

Colonel ROOSEVELT. I have not that list before me.

COST OF MAINTENANCE OF REPAIR OF SHIPS MAINTAINED FOR BUREAU OF FISHERY

Mr. FRENCH. At different places we have tried to adjust the matter of expense. In connection with these ships you are maintaining at least two for the Fish Commission. The *Survey* vessel is that for the benefit of the Navy?

Admiral TAYLOR. Yes, sir. She works in the West Indies.

Mr. FRENCH. The two Fish Commission ships are being maintained for the Department of Commerce?

Admiral TAYLOR. No, sir; we have them. I understand.

Mr. FRENCH. Yes; but I mean the service is being performed for the benefit of another department, not the Navy?

Colonel ROOSEVELT. That is right.

Admiral TAYLOR. They belong to the Commerce Department.

Mr. FRENCH. It is not fair to the Navy to have it going out of the country that an additional expense of \$250,000 or \$500,000 charged for maintaining ships, when, as a matter of fact, it is an expense which ought to be charged up to an institution that everybody is saying should be maintained, and yet while it is getting credit for the results it is not receiving the charge for the expense.

Colonel ROOSEVELT. I agree with you.

Mr. FRENCH. We ought to follow that policy out.

Colonel ROOSEVELT. I think everyone must agree to that policy.

Mr. FRENCH. I was trying, if possible, to split up such expenses and put them where they belong. In a rough way, what would you say is the expense of maintaining these two ships for your department?

Admiral TAYLOR. About \$10,000 for Construction and Repair.

Mr. FRENCH. That is merely for this item alone?

Admiral TAYLOR. Yes, sir.

Mr. FRENCH. But there would be an item probably that would aggregate two or three hundred thousand dollars?

Admiral TAYLOR. The cost of the crew, the engineering, and that kind of thing would be very much greater.

Colonel ROOSEVELT. I can not say offhand, but quite a good deal. I should say about \$250,000 would cover the expense of running those ships a year.

Admiral TAYLOR. I think it would. I can answer that approximately in the hearings.

Mr. FRENCH. If you will, please.

NOTE.—Average cost per annum, 1920 and 1921, \$172,186.82.

Mr. KELLEY. You have given the expense of maintaining your bureau so far as the ships of the Navy are concerned based upon ships that the Navy Department advised you last fall would be kept in commission next year. That is correct?

Admiral TAYLOR. Yes, sir. I think I have given you full information on that.

Mr. KELLEY. The figures which you have given this morning were based upon the advice you had last September as to what ships could be kept in commission?

Admiral TAYLOR. And then my estimate had an arbitrary reduction of 20 per cent. I hope you will consider my estimate rather than the arbitrary reduction if you come to a further reduction.

Mr. KELLEY. In compliance with the request to the department from this committee, have you prepared an estimate of the cost of maintaining in commission, so far as your bureau is concerned, the ships which could be kept in commission on the basis of 65,000 men?

Admiral TAYLOR. There is some question what could be kept in commission with 65,000 men. With that letter from Mr. Madden I have been furnished a list of ships upon which I have estimated.

Mr. KELLEY. Did they furnish you a list of ships that they would keep in commission with 65,000 men?

Admiral TAYLOR. They simply furnished me with a list of ships upon which to estimate. I think the question of whether they could or could not be kept in commission with 65,000 men has not been finally settled.

Mr. KELLEY. Please make a statement for the record as to what his estimate we are now talking about is based on?

Admiral TAYLOR. I have a list of the vessels furnished me under date of March 16, 1922, in order to comply with the request of the chairman that certain information be furnished.

Mr. KELLEY. Can not you state exactly what that list is based on? What is the basis upon which your figures are computed?

Admiral TAYLOR. It is a hypothetical list, as to which, I believe, there is a difference of opinion between the Navy Department and the committee.

Mr. KELLEY. No; we did not ask for that. We asked the department to furnish you with a list of ships that they would keep in commission if they did not have but 65,000 men, and requested you to make your figures on that list of ships.

Admiral TAYLOR. I have a list of the ships furnished me.

Mr. KELLEY. The list which they gave you is the list they would keep in commission, as far as you know, with 65,000 men?

Admiral TAYLOR. It is the basis for the estimate for these hearings.

Mr. KELLEY. What is that list headed?

Admiral TAYLOR. "Estimated expenditures under appropriation Construction and repair, 1923, on basis of vessels in service per Navy Department's list of vessels dated March 16, 1922."

Mr. KELLEY. Where is the list?

Admiral TAYLOR. That is the list; it is not itemized by vessels.

Mr. KELLEY. They did not give you the names of the ships?

Admiral TAYLOR. No, sir. Not final list.

Colonel ROOSEVELT. You will have the list of ships, that is, the Navy Department's list, in a very short time.

Mr. KELLEY. Did you reduce your figures by 20 per cent?

Admiral TAYLOR. No, sir. We have made some reductions where we thought we could.

Mr. KELLEY. Is it your understanding that this list is based upon personnel of 65,000 men?

Admiral TAYLOR. It grew out of that request, sir.

Mr. KELLEY. It is your understanding that it is based on that?

Admiral TAYLOR. I would not like to state that positively.

Colonel ROOSEVELT. I will answer that, Mr. Chairman—it is.

Mr. KELLEY. We can put into the heading of this table that this is based upon the department's list furnished you in response to our request for a list of ships which could be kept in commission with 65,000 men?

Admiral TAYLOR. That is Colonel Roosevelt's statement.

Mr. KELLEY. Is that agreeable?

Colonel ROOSEVELT. Yes; quite. The Secretary is expected to be here and submit the list.

Mr. KELLEY. It will not make any material difference?

Colonel ROOSEVELT. There are some minor corrections that I know the Secretary made this morning, not enough to make any difference.

COMPLEMENTS OF DESTROYERS UNDER ALLOCATION BASED ON 50,000 MEN AFLOAT

Mr. KELLEY. Just briefly state what this list does with the destroyers.

Admiral TAYLOR. Sixty-five destroyers in commission. I believe; there are a number, 50 in ordinary, and the rest out of commission.

Mr. KELLEY. What do you mean by "in ordinary"?

Admiral TAYLOR. With a few men on board.

Mr. KELLEY. The term "in ordinary" has gone out of use.

Admiral TAYLOR. Just a few men on board.

Mr. KELLEY. Just a few caretakers. Do you not have to have anybody on board when put out of commission?

Admiral TAYLOR. We have a ship keeper. Of course, we have people who have to inspect them constantly. We have ship keepers looking out for them. We have been trying to use enlisted men for ship keepers owing to the shortage of our appropriation. I believe we will have to pay for them out of this appropriation hereafter.

Mr. KELLEY. The \$15,000 to each destroyer is for ship keepers and watchers?

Admiral TAYLOR. No, sir; that is for the Construction and Repair expenditure in maintaining them.

Mr. KELLEY. What condition would these 50 ships be in as far as being able to be used?

Admiral TAYLOR. They could not be used until the crew was put on and the equipment put on and that kind of thing.

Mr. KELLEY. How much better off would they be than those out of commission entirely?

Admiral TAYLOR. They would be somewhat better off, because they would be better taken care of and would be more nearly ready for service.

Mr. KELLEY. How many men would you have on each one of them?

Admiral TAYLOR. I can not tell you that, Mr. Chairman, offhand.

Mr. KELLEY. This is just for the upkeep?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. There would not be enough to navigate the ships?

Admiral TAYLOR. No, sir.

Colonel ROOSEVELT. If you will pardon me, we have 50 per cent of the complement on these destroyers, which is enough to take them out just for short distances.

Mr. KELLEY. They would not be in ordinary if they had a 50 per cent complement?

Colonel ROOSEVELT. That is what I endeavored to explain, that these 50 were not in ordinary.

Mr. KELLEY. It is your understanding that there will be 57 men on these 50 destroyers?

Admiral TAYLOR. I do not think 57 men.

Colonel ROOSEVELT. There will be 65 destroyers and 50 with 50 per cent complement, the first line destroyers. That gives an allowance of 2,850 men and then 7 per cent replacement, which would mean men on each destroyer. I think we would do much better if you would allow me to telephone the Secretary and ask him to bring the revised list, because we are proceeding on a basis without the premises laid down.

Mr. KELLEY. I rather think we are in pretty good shape, having gone forward with the inquiry upon the list of ships which you adopted the other day would be kept in commission if you had men enough, and then from that we can make the calculation, which is really a matter of mathematics afterwards, but I think we want them in the record. That is all there is to your estimate for ships. What is the rest of it? This is the original list and not the revised list.

PERCENTAGE OF LEAVES AND HOLIDAYS.

Admiral TAYLOR. We figure, in addition to that, leave and holiday expenditure for which my original figure was \$1,275,000—

Mr. KELLEY (interposing). What is the revised figure?

Admiral TAYLOR. The arbitrary reduction of 20 per cent would make that \$1,020,000. The classified force is put in at \$2,750,000, and 80 per cent of that is \$2,200,000. In addition to that, incidental expenses for navy yards, inspectors' offices, experimental and research work, \$400,000.

Mr. KELLEY. That is the revised amount?

Admiral TAYLOR. I am giving you the reduced amount in each case. Expenses at yards and stations not prorated to cost of work, \$440,000, and the maintenance and military stations, \$380,000, brings the total very close to \$20,000,000.

Mr. KELLEY. How many employees did you figure leave and holidays for?

Admiral TAYLOR. We make that a percentage of the C. and R. appropriation. It runs between 7 and 8 per cent.

Mr. KELLEY. So if the amount were reduced the figure would be reduced accordingly?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. Why do you figure on 7 or 8 per cent?

Admiral TAYLOR. That is about it runs.

Mr. KELLEY. Based on experience?

Admiral TAYLOR. Yes, sir; based on experience. That has been running for a number of years.

Mr. KELLEY. Just for the record, what is the leave and holiday actually granted?

Admiral TAYLOR. Annual, 30 days. The Saturday half-holiday amounts to six days during the year, and seven national holidays.

Mr. KELLEY. Forty-three days altogether?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. They get paid for 43 days they do not work?

Admiral TAYLOR. Yes, sir.

CLASSIFIED FORCE.

Mr. KELLEY. Are you not about ready to make a big slash in this classified force?

Admiral TAYLOR. That classified force covers a good deal of work, not only the work at the navy yards, under the C. and R. appropriation, but it covers the classified force in connection with the increase of the Navy work. I have been trying during all the seven years I have been in the bureau to persuade you gentlemen to allow the cost of the technical work for increase of the Navy to be charged up to that appropriation, but I have never prevailed. There will be a reduction in that figure, of course, next year, but on the contrary there will be some increase in the number of vessels out of commission, and we will have to probably pay watchmen and ship keepers. I should hate to see that reduced next year below \$2,000,000.

Mr. KELLEY. How much will the classified force cost this year?

Admiral TAYLOR. Our limit was \$3,450,000. We have not reached the limit. I think we will spend between \$2,400,000 and \$2,500,000.

Mr. BYRNES. You have cut it down to \$2,500,000?

Admiral TAYLOR. We only spent what we thought we really needed. That is not an appropriation; it is a limitation on the appropriation.

Mr. KELLEY. If you are spending \$2,400,000 to \$2,500,000, with the discontinuance of the ship construction, would not your classified force fall much lower?

Admiral TAYLOR. Not, however, now, but in 1923-24. We expect that we will have a good deal of work in connection with this scrapping business.

Mr. KELLEY. Will we not all be pretty well out of that by the 1st of July if we move quickly?

Admiral TAYLOR. I think it will be a slow process, \$20,000,000 of material at least to catalogue, classify, and dispose of, although the bulk of the work will fall upon the other appropriation, we will not fall off much under C. & R., our inspectors will have a great deal of work to do as regards the work going on by the subcontractors.

Mr. KELLEY. Your technical force will remain about the same?

Admiral TAYLOR. It will remain almost the same. There will be some reduction that will come toward the end of the year, but we are not stopping building ships and we will need a technical force, and it will remain almost the same.

Mr. KELLEY. Not after this coming year?

Admiral TAYLOR. No, sir; after this coming year we will have a reduction.

NUMBER AND SALARY OF CLASSIFIED FORCE FOR 1916 AND 1922.

Mr. KELLEY. How many employees have you in this classified force?

Admiral TAYLOR. I will have to put that in the record; I have not that, sir. March 1, 1922, we had 1,315 outside the bureau and 74 in the bureau.

Mr. KELLEY. And you will also put into the record the number you had on June 30, 1916?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. So you will not have to look that up; I will put it in now. The number on June 30, 1916, was 835 and the total amount of compensation, the amount actually expended, was 78,601.87. Is it considerably more than that now?

Admiral TAYLOR. It has been increasing.

Mr. KELLEY. How much about?

Admiral TAYLOR. It varies, but I should think the average increase is over 50 per cent.

Mr. KELLEY. And the number has increased about what per cent— you had 800 and some odd men then?

Admiral TAYLOR. The number has increased over 50 per cent also, but I can say, as regards the technical force of the bureau, that we have fewer people than we had in 1916; we have already reduced them.

Mr. KELLEY. You would not like to see that go below \$2,000,000 for this purpose?

Admiral TAYLOR. No, sir. That is a limitation, Mr. Chairman; it is not an appropriation.

Mr. KELLEY. I know it.

Admiral TAYLOR. We would not employ men that we did not need, and we cut them down as fast as we can. We will carry out that policy.

EXPERIMENTAL AND RESEARCH WORK.

Mr. KELLEY. For incidental expenses you have \$400,000. What are those expenses?

Admiral TAYLOR. That is for the Title V experimental and research work. That is for the navy yards and inspectors' offices, and is principally for the pay of men.

Mr. KELLEY. What is the money used for?

Admiral TAYLOR. It goes for miscellaneous material, stationery, ice appliances for the navy yards and inspectors' offices, and miscellaneous charges from time to time which can not be located against specific ships or any other title accounts.

Mr. KELLEY. Have you got it distributed in a little more detail?

Admiral TAYLOR. Not in detail; no, sir.

Mr. KELLEY. Would it be much trouble to segregate that expense under three or four heads and give the details?

Admiral TAYLOR. We could do that by searching through our records.

Mr. BRUNNER. Those expense returns are not reported separately.

Admiral TAYLOR. They are reported under Title V, and it is a little difficult to separate them. Title V includes something like 40 to 50 heads of expense.

Mr. KELLEY. Can you give the amount expended for experimental purposes?

Admiral TAYLOR. I think so.

Mr. KELLEY. How much is that? Is this laboratory you are to open up next year included in it?

Admiral TAYLOR. No, sir. This includes the model basin at the Washington yard, and the work we do there in connection with

aviation experiments. It includes expenditures in connection with gas masks and gas-protection appliances and methods of all kind. It also covers the investigation that we are making in order to reduce oil consumption. My friend, Admiral Robison, is investigating the question of reducing fuel consumption on ships, and we are trying to help by reducing fouling, which adds to fuel used. We are constantly testing new and improved materials at navy yards. We have a year to make tests of tool steel submitted, and awards are made up on the basis of the actual tests. A large number of minor items are included in it, but the major items are the model basin work and the wind tunnel at the Washington yard.

Mr. KELLEY. Does that represent a considerable part of this sum?

Admiral KELLEY. It is an appreciable part of it, or between fifty and one hundred thousand dollars.

Mr. KELLEY. Nothing is included in this item for the laboratory you are to open next year?

Admiral TAYLOR. Not in this figure. This is work that we have been doing.

Mr. KELLEY. Whose traveling expenses are paid out of it?

Admiral TAYLOR. None; so far as I know.

Mr. KELLEY. I thought something was said about the traveling expenses of inspectors under this item?

Admiral TAYLOR. No, sir.

Mr. KELLEY. What is the rest of it expended for, outside of experimental work?

Admiral TAYLOR. It is for experimental and research work.

Mr. KELLEY. The whole \$400,000?

Admiral TAYLOR. Yes, sir.

Mr. KELLEY. What did you mean by your statement in regard to paying the traveling expenses of inspectors out of this fund?

Admiral TAYLOR. That was another fund. You were speaking of the previous item. There is no travel at all under this item, and there is no reason for any.

Mr. KELLEY. This item does not include traveling expenses?

Admiral TAYLOR. No, sir.

Mr. KELLEY. Does the previous item include traveling expenses?

Admiral TAYLOR. No, sir; that covers the expense of the pay of the men.

YARDS AND STATIONS.

Mr. KELLEY. For yards and stations, you have \$1,440,000?

Admiral TAYLOR. That is Title G, and the estimated expenditure is based upon previous experience.

Mr. KELLEY. How much of that is for new tools?

Admiral TAYLOR. None of it, except for minor hand tools and maintenance.

Mr. KELLEY. Can you give the details of that?

Admiral TAYLOR. I can not give you the details. That is a part of an item of about \$7,000,000 that is charged up to Title G every year, and we have segregated from that what we regard as expenses directly chargeable to this appropriation. The rest of Title G goes into the cost of work under indirect.

Mr. KELLEY. This is a variable sum, depending upon the state

Admiral TAYLOR. It is a variable sum, but it has been reduced. Last year that fund amounted to \$2,623,000 at the ten working yards, and it has been cut about one-half.

Mr. KELLEY. How do you determine whether you shall pay any of those charges, or not?

Admiral TAYLOR. As a matter of practice, that is determined under the accounting instructions by the local people.

Mr. KELLEY. They have to follow the instructions of the Navy Department in that regard?

Admiral TAYLOR. They follow the accounting instructions. Probably you have been told that we are revising our accounting system, and when that is done these matters can be determined much more accurately. I would like to say in that connection that a large part of that money that is charged against our appropriation is for indeterminate expenses. For instance, you have been told, I think, that all power could legitimately be paid for from the Yards and Docks appropriation, and technically, under the law, that is true, but, as a matter of fact, when power is used in a shop, the charge should be made to the shop and distributed to the jobs in the shop under the appropriation named. Technically, under the wording of the old act, it might all be charged to the Yards and Docks appropriation, and Yards and Docks would then be paying for work carried on in the shop. However, that was not intended, and the instructions are to have a line of demarcation by which Yards and Docks appropriations are used to maintain the grounds and to provide electricity for lighting the yards, but they should not pay and at the present time they do not pay for power used in the shops.

Mr. KELLEY. Do you ever pay for power used on the grounds?

Admiral TAYLOR. Not except by indirection through indeterminate. The difficulty has been that the indeterminate charges have been entirely too large and a revision of the accounting will straighten that out, and will make sure, for instance, that the expense of lighting the grounds will be paid from Yards and Docks appropriations.

Mr. KELLEY. How much will this amount to in your appropriation this year?

Admiral TAYLOR. There is no separation of the expenditures here. The expenditure last year was \$2,623,000.

Mr. KELLEY. Will the fact that you will have so many destroyers laid up affect this item?

Admiral TAYLOR. Not very much, and only as the total expenditures at the yard are affected. That item will not fall off proportionately, however, with the total expenditures, but it will be somewhat in proportion. There is an irreducible minimum at which we must stop.

Mr. KELLEY. How much did you spend in the Yards and Docks last year when this item was \$2,623,000?

Admiral TAYLOR. Our appropriation then was \$31,000,000.

Mr. KELLEY. So that this, perhaps, would be something in the same proportion?

Admiral TAYLOR. That figure of \$1,440,000 taken from a \$20,000,000 appropriation would be in somewhat less proportion. We have cut it almost in half.

Mr. KELLEY. We have already taken off a little bit this morning.

Admiral TAYLOR. I have observed that; but I hope you will be in mind that there is a constant expenditure under this item, even if we got no appropriation for those other things. You do not start at zero, but must start some little distance up the scale.

MAINTENANCE OF MACHINERY.

Mr. KELLEY. You have \$380,000 for maintenance. What is that for?

Admiral TAYLOR. Maintenance of machinery. That is mainly floating property that we have stationed all over the world. Under this item we separate industrial stations from military stations. For instance, Annapolis is a military station, and we have a large number of boats down there which have to be maintained. Then we have floating equipment at the training stations.

Mr. KELLEY. This is your share of the maintenance that starts where your property is located?

Admiral TAYLOR. Yes, sir. Last year our expense for that was something over \$1,000,000.

FOR MAKING INVENTORY OF SUPPLIES AND MATERIAL.

Mr. KELLEY. Going back to this classified force, you say that there will be a need this coming year for a number of people to handle the material that you have on hand.

Admiral TAYLOR. A greater number; yes, sir.

Mr. KELLEY. What is the nature of that material?

Admiral TAYLOR. The material includes everything that goes on a ship, and there is hardly anything that does not go on a ship, from bricks to diamonds.

Mr. KELLEY. Was it designed to go on vessels that are not to be finished?

Admiral TAYLOR. What we are doing now is to undertake an inventory of that material not only at the shipyards but at the sub-contractors' works. As you know, we have stopped all construction on ships to be scrapped. Some of the material is partly complete and a part of it is at the shipyards. It is the purpose to make an inventory and classify it and determine what is of no worth, what could be used, and what should be scrapped. We must pass up that material and find out just what part of it can be used for ships that are to be retained. Some of the material can be used for the ships that we will finish, including the aircraft carriers. Some of it is standard material, and the standard material can be sent to the shipyards to be used for replenishment and replacements.

Mr. KELLEY. That will make some difference in your appropriation for the coming year, will it not?

Admiral TAYLOR. No, sir; because it will probably take several years to work that material off.

SUPPLIES AND MATERIAL ON HAND.

Mr. KELLEY. You will have on hand a great stock of supplies and repair material, will you not?

Admiral TAYLOR. We do not know yet what we will have.

Mr. KELLEY. There will be a lot of material that you can use for repairs and other purposes at the yards?

Admiral TAYLOR. We do not know what we will have, but there will be no large stocks of such things as you refer to. We will have things like fans, for instance, but our present thought is that we will probably have to sell off that stuff at whatever price it will bring. As regards C. and R. stuff, it may be that it is not of the same model—

Mr. KELLEY (interposing). Do you not have a lot of copper pipe of the kind that you need so much of in the repair of ships?

Admiral TAYLOR. We will have a great deal of copper pipe, but we already have a great deal of copper pipe, and iron pipe also. You object to our accumulating a large stock of that material.

Mr. KELLEY. You will have this stuff on hand which will come to you under the present arrangement. Now, when you take this stuff over, do you mean to take it over at the price you paid for it, or at the scrap price, or at the price you can get for it?

Admiral TAYLOR. That has not been settled yet, but I presume it will be fair to take it over at the price for which it could be sold. Of course straight pipe is worth practically what we gave for it, but pipe that is already bent, of which there will be a good deal scattered around the yards, will not be worth anything.

Mr. KELLEY. If you take all of this material that you have on hand for the construction of ships and fix a sale price on it—and that is probably what you would do—and then use it at that price, it would make quite a difference, would it not, in the sum you are asking for repairs?

Admiral TAYLOR. I do not believe so. Of course we have not gone far enough to say definitely, but I am of the opinion that it would not make any great difference, so far as my work is concerned.

Mr. BYRNES. If you should make the price low enough, you might buy a lot of it.

Admiral TAYLOR. The question is whether we could use the material the first year or not.

Mr. BYRNES. The presumption was that it was material that could be used.

Admiral TAYLOR. The question is whether we could use much of it the first year. For instance, taking the greater part of the material, plates to be incorporated in the ships, all that we could do with them would be to cut them up. When a plate has been fabricated and is ready to go on the ship, ordinarily it can not be used at any other place. There is not an enormous accumulation of such stuff at the yards, because we order plating as we expect to use it.

Mr. KELLEY. What are the chief items of material that you could use in making repairs?

Admiral TAYLOR. Wood, plates, and shapes.

Mr. KELLEY. You have a large amount of lumber on hand, have you not?

Admiral TAYLOR. No, sir; we have not reached the state where lumber was required in large quantities.

Mr. BYRNES. However, the lumber at the yards could be used for

Admiral TAYLOR. Some of it could be. We had large contracts for teak, which is the most expensive wood used on ships. We had large contracts for West Indies teak, but they were canceled.

Mr. KELLEY. What else is there?

Admiral TAYLOR. Plates and shapes constitute by weight the greater part of it.

Mr. KELLEY. These shapes must be made to fit the ships?

Admiral TAYLOR. They are ordered that way. Every bit of plating that goes into a ship is ordered for that ship from plans showing the location and dimensions of the plates. Every part of that material, except for spares, which are ordered at random for every ship, is ordered for the particular ship, and the order indicates the rough dimensions of the place it is to fit.

Mr. KELLEY. Give the rest of the large items.

Admiral TAYLOR. It includes piping.

Mr. KELLEY. That will be an item which you can use pretty extensively?

Admiral TAYLOR. Piping is always good, but I do not know that we have any large accumulation of that. We have, for instance, auxiliary machinery, and that is a very extensive item, including steering gears, windlasses, etc., but we can not use them except on the ships for which they were designed.

Mr. KELLEY. Could you not use the steering gears?

Admiral TAYLOR. No, sir.

Mr. KELLEY. Nor the windlasses?

Admiral TAYLOR. We might be able to build a ship around a windlass, but we would have no use for those appliances, except as we can use them for the aircraft carriers.

Mr. KELLEY. What other material will there be?

Admiral TAYLOR. Then, we have paint, which is a very important item.

Mr. KELLEY. There would be no trouble about that.

Admiral TAYLOR. There would be no trouble about that if we had quantities of paint at each place where a ship is building, but none of the ships except the *Washington* has reached a stage where much paint was being used on them. So far they have used mainly red lead.

Mr. KELLEY. You mean that you have not much on hand?

Admiral TAYLOR. I believe they will not have much on hand. They have contracts, but probably not much has been delivered. The principal paint used during construction is for preservation, and that is red lead.

Mr. KELLEY. Have you no work on which you could use that?

Admiral TAYLOR. We could use some of it, but paint is a commercial article, and we do not carry a very large stock of it as a rule. It deteriorates in storage.

Mr. KELLEY. What else is there? Are there any boats?

Admiral TAYLOR. The boats are not on any of those vessels except a few.

Mr. KELLEY. Will there be boats enough to replace any that may be required during the coming year?

Admiral TAYLOR. No, sir. Those boats are built by the Government, and we could not get them for nothing. The contractor does not supply them.

Mr. KELLEY. You would have to take them at cost?

Admiral TAYLOR. We supply the boats, and I am afraid that the bureau of Supplies and Accounts would not allow us to draw them out except at full price. We have never been able to procure anything under Supplies and Accounts except at full price.

Mr. KELLEY. What other material have you on hand?

Admiral TAYLOR. There are anchors and chains, but there will be very little scrapping in connection with them. They would be used for replacements and on the aircraft carriers. There will be items which would be in a completed ship, such as linoleum, and we have sheet metal. We will probably be able to use the sheet metal, more or less, as a standard supply. The large fans are generally designed to suit a particular ship. Although some of the smaller sizes are available for general use, the larger sizes are not adapted to anything except the particular ships for which they were designed.

Mr. KELLEY. Is the ship program that is to be completed mostly under private contract?

Admiral TAYLOR. Yes, sir. The scrapping will be mostly of ships in the yards. Six out of 11 of the big ships to be scrapped are in the yards.

Mr. KELLEY. So that the yards next year will go back practically to the status of repair yards?

Admiral TAYLOR. Yes, sir; except that there are a few auxiliaries that we are building.

COMPARISON OF TONNAGE FOR 1916 AND 1923 TO BE MAINTAINED.

Mr. KELLEY. Then, we can come pretty close to the 1916 cost, by adjusting wages and the increased number of ships, whatever they may be?

Admiral TAYLOR. No, sir; I do not think so. There is no prospect that wages will be reduced much.

Mr. KELLEY. I said after making the proper adjustment for wages and for any additional ships, you could go back to the 1916 figure.

Admiral TAYLOR. Wages are still 66½ per cent above the 1916 figure in the yards. If you take my appropriation of \$10,000,000 in 1916, roughly, I should say, 60 per cent of it would be wages. That would make it \$14,000,000 now on account of the increased wages, and you should consider that the Navy is more than double the size of the Navy in 1916.

Mr. KELLEY. Thirteen of the 18 battleships would be the same.

Admiral TAYLOR. But the total displacement involved is very much greater.

Mr. KELLEY. I am talking about ships that you will have to repair, and not the total tonnage of the Navy.

Admiral TAYLOR. There is not a ton in the Navy that does not sooner or later involve some expenditure under C. and R.

Mr. KELLEY. Let us take the 13 battleships you had in 1916: you have 18 now instead of 13, and you had a predreadnaught fleet in 1916 of 10 or 15 vessels. You had more battleships in commission in 1916 than you have now.

Admiral TAYLOR. Yes, sir; but they were much smaller vessels.

Mr. KELLEY. Not so much smaller, because 13 of them were the same ones that we have now.

Admiral TAYLOR. The last five added almost an equal amount of displacement.

Mr. KELLEY. But all of those prior to the *Delaware*, including the *South Carolina* and *Michigan*, and all of the predreadnaughts, will be out of commission.

Admiral TAYLOR. Yes, sir; they will be scrapped.

Mr. KELLEY. So that your battleship situation is not much heavier now than then.

Admiral TAYLOR. Next year there will be some additional scrapping—

Mr. KELLEY (interposing). We will take care of the scrapping bill in a separate appropriation. We want to draw a line on the 1st of February, right straight across, and everything that has to do with scrapping ships, or with the taking off of material on the ships that will be scrapped, will be charged back into a scrapping fund.

Admiral TAYLOR. Including the completed battleships that will be scrapped?

Mr. KELLEY. Yes. Does what I have been asking about make any difference in that figure?

Admiral TAYLOR. As regards the scrapping, our part of the expenditure would be small.

Mr. KELLEY. Your figures do not include anything that could be taken out on account of the scrapping?

Admiral TAYLOR. As regards the use of that material, I have not figured on it, but I do not believe it would relieve my appropriation for next year \$100,000. I think \$100,000 would be a liberal estimate.

Mr. BYRNES. What about the necessity for the transportation of that material to the yards where you are engaged in repair work on ships, or would there be much transportation cost?

Admiral TAYLOR. There will be a great deal of transportation involved. We are trying to sell as much as possible of it where it lies.

Mr. BYRNES. I suppose there are instances where it would be more economical to sell than to pay the freight on the material?

Admiral TAYLOR. The instructions we are drafting contemplate the sale at once of the small material which will cost more to catalogue and classify than it is worth. It is only the material that has a good value that should be stored.

Mr. KELLEY. Would not you and Admiral Robison cover pretty nearly everything that is charged up to the maintenance of the navy yards?

Admiral TAYLOR. We would cover the major part of it.

Mr. KELLEY. A very definite line could be drawn. You and Admiral Robison practically run these navy yards, do you not?

Admiral TAYLOR. We spend most of the money in the navy yards.

Mr. KELLEY. If you two paid all the bills of the navy yards, and left Yards and Docks simply to provide for the military yards where there is no industry going on, you would get this maintenance appropriation right down into practically one spot in the Navy Department.

Admiral TAYLOR. Then we would be accused of using money appropriated for the purpose of building ships in keeping up the yard, and we would be in the same condition we were in years past.

Mr. KELLEY. That is what we are doing now; there is \$1,440,000 right here to keep up the yards.

Admiral TAYLOR. But that is our own plant and it is stuff which we should keep up; it may be used indirectly in some cases, but it should not be used to maintain roads, walks, and things of that kind which have little or nothing to do with the industrial part of the yard. Our appropriations should be spent entirely for the industrial part.

Mr. KELLEY. I should think a road over which you haul your stuff to a shop is as essential as a crane or anything else.

Now, Admiral, in view of the reorganization of your accounting system, should the Secretary of the Navy have authority to consolidate or transfer funds from the appropriations made for the Bureau of Yards and Docks, Ordnance, Engineering, and Construction and Repair to properly carry out the provisions of your new system?

Admiral TAYLOR. There is already authority of law to do that. I would rather have the Secretary answer that, but my recommendation would be that I would make no change this year.

Mr. KELLEY. You do not want this section repealed this year?

Admiral TAYLOR. Is that the act of 1914?

Mr. KELLEY. Yes—

Hereafter there shall be charged against the several appropriations for the support of the Naval Establishment the overhead charges incident to upkeep and to industrial work at navy yards and stations. The total sum so charged shall be distributed in accordance with the work done in the various yards and stations in order that the cost of the work may be determined.

Admiral TAYLOR. I think that should remain, Mr. Chairman.

Mr. KELLEY. That is what gives him authority to transfer these funds from one place to another?

Admiral TAYLOR. Yes, sir.

Mr. BYRNES. How much have you on hand to-day?

Admiral TAYLOR. We have something under \$6,000,000, or, rather will have the 1st of April.

Mr. KELLEY. You mean in this fund?

Admiral TAYLOR. In C. and R. We were very much alarmed on the 1st of January when we cut down by 25 per cent the allotments afloat, and I had cut down the allotments to the yards because we were running behind, but the people afloat are showing economies now and we will pull through without a deficiency unless we wreck two or three ships.

Mr. BYRNES. You will pull through to the end of the year?

Admiral TAYLOR. Yes, sir.

Mr. BYRNES. Do you expect to spend the \$6,000,000?

Admiral TAYLOR. I expect to spend all but a reasonable balance; we saved \$300,000 last year but had to come for a deficiency, but I hope we will save enough this year to avoid a deficiency. As you know, we have certain expenditures to make after the close of the fiscal year, these appropriations extend over a period of two years, and we will probably need to save \$300,000 or, perhaps, a little more to cover all the payments.

Mr. KELLEY. How do you keep track of the repairs on shipboard, do you not have many repairs made on the ships?

Admiral TAYLOR. Yes; we have a great many repairs made on the ships.

Mr. KELLEY. Do do you keep track of the total?

Admiral TAYLOR. We have returns made; we get the information from Supplies and Accounts and we keep an account with each ship as to the C. and R. expenditures.

Mr. KELLEY. How far behind are you?

Admiral TAYLOR. We are not behind.

Mr. KELLEY. I mean on information as to what they have spent.

Admiral TAYLOR. The reports are in for January.

Mr. KELLEY. So you are about three months behind?

Admiral TAYLOR. About that.

Mr. KELLEY. Is there not some way by which you could keep a little closer track of the expenditures being made on shipboard for repairs?

Admiral TAYLOR. Are you speaking of the allotments to the ships themselves or repairs at the yards?

Mr. KELLEY. I remember what you said when you came for a deficiency.

Admiral TAYLOR. We are getting closer all the time.

Mr. KELLEY. Of this \$20,000,000 that you estimated for before you made your reductions and then before we made further reductions—

Admiral TAYLOR (interposing). The \$20,000,000 was after the 20 per cent reduction. I wish you would start with the original figure.

Mr. KELLEY. What part of that is labor and what part material?

Admiral TAYLOR. Roughly about 55 per cent, our experience shows. It varies between 50 and 60 per cent, but the major part is labor.

Mr. KELLEY. If our suspicions are borne out in practice, that you will find quite a large amount of material which you can get pretty cheaply as a result of this scrapping, you could make quite considerable economies.

Admiral TAYLOR. That is a pure hypothesis which we will not find.

Mr. KELLEY. I say, if our suspicions should hold out.

Admiral TAYLOR. Yes.

Mr. KELLEY. Of course, that is not a very trustworthy basis, but I am wondering whether you have really thought of the possibilities with all these ships being scrapped and the material sold at a scrap price and you being able to avail yourself of it to the extent that the material was useful.

Admiral TAYLOR. As you put it I can only answer yes, because there is no other answer possible, but it is a theory and not a condition.

DETAILS CONCERNING BROOM INCIDENT.

Mr. BYRNES. Admiral, you have informally mentioned brooms. Do you place the orders for brooms?

Admiral TAYLOR. No, sir; they are placed by the Bureau of Supplies and Accounts.

Mr. BYRNES. What did you have to do with the ordering of brooms?

Admiral TAYLOR. You are referring to the broom incident?

Mr. BYRNES. You mentioned brooms, and I wondered whether you had anything to do with the ordering of brooms?

Admiral TAYLOR. Yes, sir; we handle brooms.

Mr. BYRNES. Did you place an order for brooms and, then when you by the War Department did not

and, then when nothing refused exactly with

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Admiral TAYLOR. No, sir. We advertised for a number of brooms last fall and we were offered War Department brooms at 70 cents. Our bids were 38 cents and a fraction, and I recommended that we place the award with the New York Institution for the Blind, the people who made the bid, and the Bureau of Supplies and Accounts placed the award accordingly.

Mr. BYRNES. Were those brooms surplus brooms in the War Department?

Admiral TAYLOR. Not as it came to us. They were offered to us at 70 cents.

Mr. BYRNES. When an order is placed would it come to your bureau and then go to all the other bureaus in order to ascertain whether that material is on hand?

Admiral TAYLOR. No, sir. In this instance we originated the requisition and it was referred to the Army storekeeper in New York, I believe, who reported that he had these brooms available at a price, but I am very positive in my recollection that they were not surplus but that we would have to pay 70 cents for them.

Mr. BYRNES. Did that come to you in the shape of a memorandum?

Admiral TAYLOR. No, sir; but the bids came to me. All of our requisitions for material are sent to the Bureau of the Budget to see whether the material can be supplied from any other source, and that is the way the requisition was handled in this case.

Mr. BYRNES. From what source did you get information that you would have to pay 70 cents for them?

Admiral TAYLOR. Our schedule was referred to the Army quartermaster in New York, who said he had these brooms in stock.

Mr. BYRNES. What I want to know is whether you have any memorandum in which it appears that you were asked to pay 70 cents or any other price for those brooms instead of being offered the brooms or nothing, and if you have such a memorandum I want you to put it in the record.

Admiral TAYLOR. My information is that these were offered to us at 70 cents and I have no recollection and I am quite sure that nothing ever came to me showing that they would be supplied for nothing.

Mr. BYRNES. What, if anything, came to you indicating that you would have to pay 70 cents?

Admiral TAYLOR. It was a memorandum from the storekeeper in New York.

Mr. BYRNES. I wish you would put that memorandum in the record.

Admiral TAYLOR. That is probably in the Bureau of Supplies and accounts, but I can get it; it was simply an indorsement on some paper saying that these brooms were in stock and available at that price.

WAR DEPARTMENT.
GENERAL SUPPLY DEPOT, QUARTERMASTER CORPS,
New York, November 29, 1921.

From: Quartermaster Supply Officer.

To: Coordinator, General Supply, Second Corps Area, 45 Broadway, N. Y.

Subject: Supplies required by the Navy.

1. Receipt is acknowledged of your communication of November 25, 1921, transmitting to this depot Navy supply schedules.

2. Schedule No. 9047 has been withdrawn and is returned herewith with the information that the 18,000 corn brooms called for can be furnished from stocks on hand at this depot at a price of 70 cents each.

3. The remaining schedules have been transmitted to the surplus property division for advice as to the articles which can be furnished from the stocks under their jurisdiction.

GEO. E. PRUITT.

Mr. KELLEY. Admiral, we are very much obliged to you.

FRIDAY, MARCH 17, 1922.

BUREAU OF ORDNANCE.

**STATEMENTS OF REAR ADMIRAL CHARLES B. McVAY, JR.;
CAPT. F. L. PINNEY, ASSISTANT; AND MR. FRANK S. RAY.**

ORDNANCE AND ORDNANCE STORES.

Mr. KELLEY. We have with us this morning Admiral McVay, Chief of the Bureau of Ordnance, and we will be glad to have the Admiral make any general statement relative to his bureau that he may desire to make before we take up the items in detail.

Admiral McVAY. Up to 1920 there were several appropriations under the different names which the committee decided to place directly under ordnance and ordnance stores. The estimate revised, taking into account the probable cost of material and labor, and including all of the items which used to be included and which were not prior to 1920 included in this appropriation but now are, is less than any estimate submitted since 1909.

The bureau is pleased to be able to inform the committee that the appropriations made for the fiscal year 1922 were ample and, due to the establishment of the five-day working week, together with the reduction in labor and material, it will be able to carry on its work satisfactorily for the remainder of the fiscal year with a probability of being able to return to the Treasury an unexpended balance of between \$500,000 and \$1,000,000, depending upon whether or not unusual conditions and sudden emergencies arise during the next four months. The estimates as submitted last July for the fiscal year 1923 were based upon the wage scale in effect at that time but took account of a probable reduction in material costs. The net result of the reduced wage scale has been a reduction of approximately 12½ per cent in labor costs at navy yards and stations, so that the bureau is now able to recommend a reduction in the estimates under the appropriation "Ordnance and ordnance stores" for the fiscal year 1923 from \$13,130,000 to \$12,000,000. If and when the naval treaty is ratified, and suitable legislation is enacted authorizing the stoppage of work on vessels to be scrapped, this estimate may further be reduced to \$10,700,000, which the bureau believes will be sufficient for its purposes. Since this was written there has been a reduction in enlisted personnel at our stations and that will necessitate certain activities being carried on by civilian labor, such as running boats at the torpedo station and on the range.

I do not propose to make any change in my estimates on that point, because if I find it necessary to stop activities to come with this, I propose to do it.

DETAILS OF ESTIMATE.

Mr. KELLEY. Last year, Admiral, you furnished us with the details of this appropriation. Have you a copy again this year?

Admiral McVAY. Yes, sir.

The CHAIRMAN. You suggest that if the treaties are finally executed you can reduce the \$12,000,000 estimate to \$10,700,000 for next year. You assume that they have been executed now, and you enter upon a course of activities based upon that assumption to-day, or as of the 1st of March, say, how much would you be able to add to the \$1,000,000 which you say you will have as a surplus for this fiscal year?

Admiral McVAY. That is included in that, Mr. Madden. We are working on stopping a certain amount of the activities now, but the greatest saving would not show for the rest of the year because the great part of it is a reduction in the inspection force and field force, which I have cut off from \$1,900,000 to \$1,000,000, so there is a \$900,000 saving right there. Of course, our people are all engaged now in making these inventories and will be required to come to Washington before the board that settles the contracts.

The CHAIRMAN. So you will really not be able to reduce as much as you otherwise might?

Admiral McVAY. Not during the balance of the year; and also, I am not taking a chance in this estimate and assuming that we are going to be able to settle this thing by the 1st of July, and I hope if we do not do it and I come to you and say this will not do, that it will be understood, because I am figuring optimistically.

Mr. KELLEY. Your fear that it might not be settled by the 1st of July involves any delay in executing the treaty and authorizations from the President to enter into negotiations?

Admiral McVAY. That is something, of course, I do not know anything about, but I am assuming we will have the thing cleared up by the 1st of July and that I can make reductions accordingly.

RELINING OF GUNS.

Mr. KELLEY. You may now go ahead with your analysis.

Admiral McVAY. The amount for relining guns is \$800,000, and this is for relining the guns of four battleships of the first line, five guns which were worn in the railway battery abroad and are required for replacements, and the two spares which are worn and must be relined. In this relining of guns, in the original appropriation, 25 per cent of the spare guns is provided, and with these spares, where new ships are built, they are one complete set of guns for a vessel of that class.

Mr. KELLEY. What will you do with the guns on ships to be scrapped like the *Michigan* and the *South Carolina*?

Admiral McVAY. We will render those guns inoperative by burning and selling them as scrap.

Mr. KELLEY. Under the treaty you are not permitted to use any of the guns on the scrapped ships to replace guns on any ships you are permitted to keep?

Admiral McVAY. We are not permitted to substitute larger calibers.

Mr. KELLEY. How many railway guns have you?

Admiral McVAY. Five. They are the guns which were used abroad and worn so that they have to be relined.

Mr. KELLEY. Do you have them relined at your expense or at the expense of the Coast Artillery?

Admiral McVAY. At our expense, because we keep the guns.

Mr. KELLEY. I thought you turned these guns over to the Coast Artillery.

Admiral McVAY. We did turn over a certain number of the railway mounts but not all of the guns; we had to keep some of the guns because they had been taken from the replacements for use in the war, and now we have to fix them up for substitution on other ships.

Mr. KELLEY. Those guns must have been guns that you took off of the predreadnoughts?

Admiral McVAY. No; they were the 14-inch, 0.50-caliber guns.

Mr. KELLEY. You took them out of your reserve stock?

Admiral McVAY. Yes, sir; and sent them right over; that is the only way we could do it.

Mr. KELLEY. They were in reserve for these particular ships you have named?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And now they have to be relined in order to restore the normal reserve of guns for those ships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What is the amount?

Admiral McVAY. The total amount for all the relining is \$800,000.

Mr. KELLEY. How much for these five guns?

Admiral McVAY. \$35,500 out of the \$800,000.

Mr. KELLEY. What is the balance of the \$800,000 for?

Admiral McVAY. The *Texas* has 10 guns and they have to be straightened.

Mr. KELLEY. Because they drop at the ends?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What is the technical name for that?

Admiral McVAY. They have an excessive droop. We have to straighten them, reline them and put an extra hoop on them to prevent this drooping.

Mr. KELLEY. Then you have to take all of the guns off of the ship for that purpose?

Admiral McVAY. Yes, sir.

Mr. KELLEY. How many are there?

Admiral McVAY. Ten. They will cost \$38,000 apiece, or \$380,000.

Mr. KELLEY. It will cost that to take the droop out of the guns on the *Texas*?

Admiral McVAY. To take the droop out, reline them, and put on an additional hoop; by doing that we find we can stiffen them; it is a good deal like putting an extra truss in a building.

Mr. KELLEY. All that work will be done at the Washington yard?

Admiral McVAY. No, sir; we expect to do quite a bit of this under contract, and that is particularly necessary w we have to straighten the guns, because we have no big

Mr. KELLEY. What is the rest of the \$800,0

Admiral McVAY. The *Oklahoma* has ten 14-inch .45-caliber guns to straightened, relined, and hooped. We figure that will cost 46,500.

Mr. FRENCH. Is that a common thing, for a droop to occur in ns?

Admiral McVAY. All guns have a certain amount of droop, and that particularly so with guns that were built several years ago; since en we have taken measures to correct it in later designs.

Mr. FRENCH. Are you correcting it?

Admiral McVAY. Yes, sir.

Mr. FRENCH. Where it has occurred was it the fault of the con-
ector?

Admiral McVAY. No, sir; it was a question of design and unfore-
en action; it was not faulty design; it was an up-to-date design,
it this drooping could not be anticipated.

Mr. FRENCH. It was an up-to-date design for the time the design
is made?

Admiral McVAY. Yes, sir; and after using the guns quite a while
is droop appeared, and then we had to take steps to correct it.

Mr. FRENCH. I suppose the heat from the firing would help in
using this drooping, would it?

Admiral McVAY. That would in a measure, but it is really a ques-
on of weight and firing, and the droop has required what I would
ll an additional truss; the guns are perfectly good and fire all right,
t every time we reline a gun we do not want the additional expense
having to straighten it.

Mr. KELLEY. What is the rest of the \$800,000 for?

Admiral McVAY. For twelve 12-inch 0.50 caliber guns on the
Wyoming, \$102,800.

Mr. KELLEY. What is the matter with the guns on the *Wyoming*?

Admiral McVAY. They need relining and hooping.

Mr. KELLEY. Have you quite a stock of linings?

Admiral McVAY. On the *Wyoming* we have the liners, but on the
as we have not; the amount required to complete the liners on
e *Oklahoma* is \$4,500 for each one; on the *Pennsylvania* there will
\$12,260 for that particular item; for the railway battery and the
res we have the liners on hand. In other words, wherever we
e material on hand we use it.

Mr. KELLEY. All of the guns of the new types which are on the
s to be scrapped are 16-inch guns, are they not?

Admiral McVAY. Yes, sir.

Mr. KELLEY. So those linings would not do, and you would expect
eep on hand a certain number for the 16-inch ships you are going
ish?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You spoke of some 12-inch guns.

Admiral McVAY. They are on the *Wyoming*.

Mr. KELLEY. And you probably have a good many 12-inch linings.

Admiral McVAY. We have those on hand for this particular ship
there will be no cost for that.

Mr. KELLEY. It is mostly labor cost in the case of all these except
Texas.

Admiral McVAY. Well, it is practically all labor for the *Wyoming*,
railway batteries and the spare guns.

Mr. KELLEY. How much for the *Pennsylvania*?

Admiral McVAY. We have to get six liners for her out of the 12 guns.

Mr. KELLEY. How much was the total amount for her?

Admiral McVAY. \$175,560. We work on a regular schedule from year to year and this is planned well in advance; we watch the firing of the ships in target practice and regulate it.

Mr. KELLEY. This is the regular overhaul work with respect to the guns on these four ships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And then next year there will be some other four ships?

Admiral McVAY. Yes, sir.

Mr. KELLEY. In order to keep them all in good condition?

Admiral McVAY. Keeping them ready to join the battle line.

Mr. KELLEY. Are there any other ships?

Admiral McVAY. No, sir; that is all.

Mr. KELLEY. That practically covers the relining item of \$800,000!

Admiral McVAY. Yes, sir. The overhaul and repair work on major caliber guns, \$100,000, is a routine overhaul, wherever things come up, and that is about the average.

Mr. KELLEY. Does that refer to the major guns or all guns?

Admiral McVAY. All guns.

Mr. KELLEY. It is not for overhaul and repair on the particular guns we have under consideration?

Admiral McVAY. No.

Mr. KELLEY. But any overhaul and repair of the major caliber guns on any of the ships?

Admiral McVAY. Yes, sir. The amount for the overhaul and repair work on turret equipment is \$300,000. The original estimate submitted by the officer in charge of the section for this work was \$1,265,905 for relining guns, which is cut to \$800,000.

Mr. KELLEY. I presume the original estimate included the guns on the ships you are going to scrap?

Admiral McVAY. No, sir.

Mr. KELLEY. Just of the dreadnought type?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You have cut that to \$800,000?

Admiral McVAY. Yes, to \$800,000 from \$1,265,905; I cut it \$465,905, and that is for relining the guns.

Mr. KELLEY. You were able to do that by reason of the large number of linings you have on hand, or what?

Admiral McVAY. No, sir; by the schedule; I took the schedule and decided that I had better not do so much this next year.

Mr. KELLEY. That is fine, and yet you are keeping up with your normal schedule.

Admiral McVAY. Yes, sir. This \$100,000 item as originally submitted was \$1,111,400.

There is an itemized list of the work to be done under that. I thought that we could not afford to do that next year and I cut it to \$100,000.

Mr. DAVIS. Admiral, I am not familiar with some of these matters, and I think, perhaps, there are many Congressmen who do not understand them. Please explain for the record what you mean by re-

g a gun, and also what is the occasion. What causes the gun e in such shape that it needs to be relined?

lmiral McVAY. Yes, sir. Originally we built the guns with a tube. Every time you fire a gun there is a certain amount of which we call erosion, which varies with different classes of , so that soon the gun is in such condition that it could not fire number of rounds carried aboard the ship. Those rounds de- led upon the life of the gun, and the gun had to be replaced. as found that instead of making this tube solid we could put a inside of it, just the same as a cylinder liner in an engine, and 1 that liner wore out, instead of buying a new gun we would buy w liner and replace it. From time to time it has been the policy roup, say, four ships with similar caliber guns. By providing er cent spares we have four guns ready to replace (a quarter of total supply of guns) on one ship, so by regulating the firing, h I will explain to you later, we can take a ship at a time, take spare guns and put them on this ship where the guns are worn; those guns and reline them, take the next ship, put those guns er, and reline hers. That is what we do.

. K. KELLEY. If the gun were solid and anything happened and it out on the inside so it would not shoot straight, we would have abandon the gun?

. D. DAVIS. No doubt.

. K. KELLEY. Now they put a liner inside.

. D. DAVIS. The wearing out of the liner is occasioned by using the

lmiral McVAY. Yes, sir.

. D. DAVIS. Did you have occasion during the war to shoot them much?

lmiral McVAY. We are firing guns all the time.

. K. KELLEY. In target practice?

lmiral McVAY. Yes, sir.

. K. KELLEY. It is the practice of the Navy Department in target ice, as I understand, to shoot with reduced charges, so as to not so much erosion of the gun?

lmiral McVAY. Of course, a gun is nothing but an engine where u run at slow speed you save the engine.

. D. DAVIS. And the less target practice you have the less occasion lining the guns?

. K. KELLEY. And the less accuracy in shooting if you have to shoot.

lmiral McVAY. A 14-inch .50 caliber gun costs \$116,000, and if eplaced it rather than relining it it would make a great deal of ence.

. D. DAVIS. I can see the propriety of relining, but I wanted to explained for the record what the relining meant and the ion for the relining.

lmiral McVAY. Is that satisfactory?

. D. DAVIS. Yes, sir; very satisfactory. I thank you very much.

OVERHAUL AND REPAIR WORK OF TURRET EQUIPMENT.

. K. KELLEY. The next is section E?

lmiral McVAY. That is the overhaul and repair work of turret ment. From time to time it is necessary to overhaul the equip- as it wears and also to make additions to keep up with the

progress. The estimate submitted for this particular section was \$654,600, giving an itemized list of the work to be done. I made a reduction to \$300,000.

Mr. KELLEY. This involves the repair of turret equipment on any capital ship?

Admiral McVAY. We have here the particular ships that they go on.

MAINTENANCE OF AMMUNITION DEPOTS, ETC.

Mr. KELLEY. Section F, maintenance of ammunition depots, routine work, overhaul, care, preservation, etc., \$1,567,600. You have that by stations, I suppose?

Admiral McVAY. Yes, sir.

Mr. KELLEY. In your bureau you have all the maintenance charges you do not share with Yards and Docks at all?

Admiral McVAY. At the ammunition depots which are directly under the bureau we pay all maintenance charges.

Mr. KELLEY. They do your work of repairs to buildings and docks and that sort of thing, Yards and Docks, but you pay the bills?

Admiral McVAY. Actually, the line is drawn at new construction. They do all the work in new construction and we pay for the maintenance.

Mr. KELLEY. They do the work, but you pay for it?

Admiral McVAY. No, sir.

Mr. KELLEY. You do it yourself?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Have you a force for making repairs on buildings?

Admiral McVAY. Yes, sir. The reason for the division is to reduce the overhead. These are small stations as compared with navy yards. If we had a separate organization there it would require a public works officer and two or three clerks, and we found our method very much cheaper.

Mr. KELLEY. Take this plant here, the Washington yard?

Admiral McVAY. That is under a different category. That is a navy yard, and while at an ordinary navy yard only 3 per cent of the maintenance charges would fall on the Bureau of Ordnance, because it is divided in accordance with the amount spent at the yard for the different bureaus, at Washington it will run about 98 per cent, because practically all the work is ordnance. At our stations it will run 100 per cent.

Mr. KELLEY. Why would it not be feasible, Admiral, to take a yard like the Washington Yard and have you responsible for all the maintenance charges, so that we would know, for instance, in making the appropriation for Yards and Docks that there was nothing in their appropriation for a yard like this?

Admiral McVAY. It is feasible, but there are certain duties prescribed by Yards and Docks for navy yards in the regulations and under the law. Appropriation "Ordnance and ordnance stores" would have to be increased.

Mr. KELLEY. I am speaking now with a view to possibly having the regulations modified.

Admiral McVAY. Yes, sir; it is feasible, but there are certain duties that we feel they should perform and I feel they should do under existing circumstances.

Mr. KELLEY. Nearly all the other navy yards would naturally all under the Bureaus of Construction and Repair and Engineering. Will it not be possible to have them bear all the maintenance charges or yards like that and finally segregate a definite line of expense which would be carried in the appropriation for the Bureau of Yards and Docks? It is a great deal of trouble now to know what they are going to pay for and what not and it is very hard to make the appropriation. It seems to me you men in authority, running these great industries, ought to work out for Congress and for the department some plan so when we made the appropriation for Yards and Docks we would know where the money was going to be used.

Admiral McVAY. I have not gotten much work out of my assistant for the last three or four weeks because he is on a board which is going into this particular question.

Captain PINNEY. We are hoping to do that very thing, to bring it around so that we can make every charge as far as we possibly can a determinate charge against some appropriation and to have control of it. In the meantime we are putting into effect on the 1st day of July a modification of the system of accounting whereby we will have more data to enable us to do this in preparing the estimates for next year.

Mr. KELLEY. Do not fix it so that you will have too many clerks.

Captain PINNEY. No, sir; it will all be done without—

Mr. OLIVER (interposing). Will any legislation be required to carry out the plan you have in mind?

Captain PINNEY. No, sir; simply the appropriations would fall under different headings, and there would be a modification of the amounts, shifting from one to the other in the adjustment.

Admiral McVAY. Apropos to this discussion of cost, the Bureau of Ordnance is different from the other bureaus because we run our own plants.

Mr. KELLEY. Except for the new construction?

Admiral McVAY. Except for the new construction, but we run these plants right from the bureau.

Mr. OLIVER. In that connection, if you feel that you will conclude some definite plan whereby you can accomplish what you have indicated within the next few months, would it not be well if we would place some proviso in this appropriation bill so the Secretary of the Navy might allocate some appropriation?

Mr. KELLEY. Make a different division?

Mr. OLIVER. So as to conform to the plan which is finally accepted.

Mr. KELLEY. I presume they would like that. I think this is what Mr. Oliver has in mind and I rather think you would agree. I do not know whether Congress would agree to it. Suppose, for instance, that in making the appropriation for Yards and Docks of \$5,000,000 or \$6,000,000, the lump sum, whatever it might be, under your new classification, of course, that might be too much or it might be insufficient, and some of the charges that have been going to Yards and Docks would under your plan be transferred to Construction and Repair or some place else. Under Mr. Oliver's suggestion it might be necessary to put in a provision authorizing the Secretary to consider the appropriation of these funds as one.

Admiral McVAY. No, sir.

Mr. KELLEY. You would not want your funds interfered with? Admiral McVAY. No, sir.

Mr. OLIVER. I feel this way about it: Since the officers have indicated that they feel confident with this plan they will be able to save money to the Government and at the same time enable us to always know—

Mr. KELLEY (interposing). Hereafter.

Mr. OLIVER. Hereafter; exactly what has been expended for this or that out of these funds, I should like to put them on probation and give them a little leeway during the year so we would know when they came before us next year whether or not their hopes had been realized.

Mr. KELLEY. So they would not be in the embarrassing position during the year of saying that the plans they had worked out could not be carried out because of insufficient funds in one appropriation or another.

I wonder if you can not reduce the number of marines at some of your depots. We should like to make a little saving if we could in the distribution of the Marine Corps.

Admiral McVAY. Every time you take away a marine I have to pay a man \$3.68 a day to take his place.

Mr. KELLEY. Have you surveyed the field lately to determine whether you might have a little surplus of marines?

Admiral McVAY. Yes, sir.

Mr. KELLEY. How many marines have you at Hingham?

Admiral McVAY. That is a pretty big station—51. The advantage of the marines—

Mr. KELLEY (interposing). I know there is an advantage, but I wondered if you could not get along with a fewer number.

Admiral McVAY. Every time you take away a marine or a sailor it costs us so much more for a civil employee.

Mr. KELLEY. What do you pay now for a watchman?

Admiral McVAY. \$3.68 on the average.

Mr. KELLEY. That would seem like rather large pay for a watchman?

Admiral McVAY. Yes, sir. At some of the magazines the way we do, is to have a certain number of houses in the grounds that the men live in, and they get those houses for providing fire protection. That is our great difficulty, to keep the brush and everything down and out of the way to keep fires from spreading. The advantage of the marines is that they are inspected and under military control and I am for keeping them, as many as we have to have, because they are much more efficient.

Mr. KELLEY. I think you are right about that. Where you have to have a good man the marine is the best. I thought possibly in all your different establishments you could release, perhaps, 50 or 100 altogether?

Admiral McVAY. We have not very many.

Mr. KELLEY. You have 51 at Hingham. How many have you at other places?

Admiral McVAY. The highest number we have at any place is at Hingham, where we have 51. I think it is quite a big station, worth of stores and equipment.

Mr. KELLEY. How many are there altogether? Do they work 8 hours per day?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You have to keep them watching all the time?

Admiral McVAY. Yes, sir. There are 663 of them all told, and there are 14 stations. Now, that is \$3.68 per day for watchmen, or that is what it would cost us under this appropriation to replace them. It would be about \$2,000 per day.

Mr. KELLEY. And they would not be as good help to you around the ammunition?

Admiral McVAY. No, sir; I want to keep my own people.

Mr. OLIVER. We would not want you to have to substitute for them. I think that would be a mistake.

Admiral McVAY. I am quite sure it would be.

Mr. KELLEY. How many enlisted men do you have?

Admiral McVAY. I do not expect to have more than about 425.

Mr. KELLEY. In all the stations?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Are they watchmen mostly?

Admiral McVAY. No, sir; not watchmen at all. They run the stations, and at certain of the stations where we have very confidential work to be done we have chief petty officers do it.

Mr. KELLEY. Would that be in the case of proving the guns?

Admiral McVAY. No, sir; in connection with torpedoes and mines.

Mr. OLIVER. A part of the duty is of a military nature, and I presume that results in a training that would be of good service in case an emergency should arise?

Admiral McVAY. Yes, sir; that is the idea. That is the great difficulty in making a reduction of any force at a torpedo station, for instance, because those men have been doing the work and we have been teaching them to do the work. Then they go to sea and some others come in.

Mr. OLIVER. So that it is really a naval training?

Admiral McVAY. Yes, sir.

Mr. OLIVER. And it is absolutely essential to the proper carrying out of your work?

Admiral McVAY. Yes, sir. There are certain things that we would not permit civilians to do, because we have no hold on them. They go out and take this information with them, and we can not afford that. Our chief petty officers are the men who do this, and they are men of long service. We will not lose them and we can trust them.

FORT LAFAYETTE, N. Y., ROOF CONSTRUCTION.

Mr. KELLEY. Yesterday there was considered an item of \$10,000 for a roof on one of your buildings.

Admiral McVAY. That is a roof at Fort Lafayette, in New York harbor. Iona Island is quite a way up the Hudson River, out of the range of guns, and this station at Fort Lafayette is simply a place at which they bring down ammunition. For instance, if a ship comes in harbor and lands ammunition there, we ship it later to Iona Island, or we may bring a barge load of ammunition down from there. The city regulations make that rather difficult.

Mr. KELLEY. Is the roof in such shape that it can not be repaired?

Admiral McVAY. No, sir; we can repair it.

Mr. KELLEY. I understood that they had to replace it entirely.

Admiral McVAY. This item covers approximately one-eighth of the roof of the magazine building at Fort Lafayette, the other seven-eighths having been covered in 1918 at a cost of \$67,900.

Mr. KELLEY. What do you cover it with?

Admiral McVAY. It is a fireproof material, and it is to keep out the water. If the ammunition gets wet, we have to take it off.

Mr. KELLEY. What do you put on the roof?

Admiral McVAY. That is a detail that I am not positive about.

Mr. KELLEY. It is some fireproof material?

Admiral McVAY. It is iron.

Mr. KELLEY. Are there any large items of repairs at any of these naval ammunition depots?

Admiral McVAY. No, sir. There is one for a dock at Iona Island, but that is in Yards and Docks estimates. Ours are not large.

Mr. KELLEY. The bulk of this first column for upkeep, maintenance, and repairs is for maintenance?

Admiral McVAY. Yes, sir; practically all of it. Our repair work is very small.

Mr. KELLEY. This covers fuel, coal, etc.?

Admiral McVAY. Yes, sir; everything.

Mr. KELLEY. And civilian employees?

Admiral McVAY. Yes, sir; except the classified. That is in a separate column.

OPERATING EXPENSES, NEWPORT, R. I.

Mr. KELLEY. For operating expenses at Newport, R. I., you estimate \$962,465. for the Newport (R. I.) Naval Torpedo Station. I suppose that is mostly pay, or is this a repair proposition entirely?

Admiral McVAY. It is for the upkeep of the grounds. We have the main island, and some buildings on Goat Island, Gould Island, and Rose Island. We have three islands.

Mr. KELLEY. This estimate for Newport, R. I., amounting to \$1,256,665 simply includes repairs, upkeep, and maintenance of buildings, the repair of torpedoes now in the service, and the furnishing of spare parts, and that sort of thing.

Admiral McVAY. Yes, sir.

Mr. KELLEY. It does not include anything for new torpedoes?

Admiral McVAY. No, sir; nothing.

CHARLESTON, W. VA.

Mr. KELLEY. For Charleston, W. Va., you have a total of \$626,500. I wish you would give us that in detail.

Admiral McVAY. That is now closed up.

Mr. KELLEY. It is closed up entirely, so that it does not appear.

Admiral McVAY. That has been cut out. The only thing in the connection is this: I called on the inspector to give me the cost of maintaining the plant in a condition of readiness, and he submitted an estimate of about \$268,000 a year. I sent it back and told him I would like to have another one, and he gave me another one which I considered too low. I figure that it will cost us to keep and maintain the place for a year about \$125,000.

Mr. BYRNES. What will you do to maintain it, or what kind of force will you keep there?

Admiral McVAY. We have to keep a force to guard the plant, and we will have to keep a force to examine the machinery.

Mr. BYRNES. Whom do you keep there for guarding the plant?

Admiral McVAY. We may have to have civilians.

Mr. BYRNES. Do you have three shifts, guarding the plant 24 hours every day?

Admiral McVAY. Yes, sir; we will have to do that if it is closed.

Mr. BYRNES. What else do you have besides watchmen?

Admiral McVAY. There will be a certain number of men to examine the machinery and turn it over and keep it from rusting. That is practically the limit.

Mr. BYRNES. It is cheaper to use watchmen than to use marines or enlisted men?

Admiral McVAY. We have marines there now. We could not get enlisted men for that.

Mr. BYRNES. Would it be cheaper to have marines perform that duty?

Admiral McVAY. I think it is cheaper to have marines, yes, sir; but that comes under another appropriation.

Mr. BYRNES. Under what appropriation?

Admiral McVAY. For the Marine Corps. It is cheaper, I believe. At any rate, it is more efficient.

Mr. BYRNES. You stated that you expected to put civilian guards here.

Admiral McVAY. I may have to.

Mr. BYRNES. Why do you say you may have to?

Admiral McVAY. Because if they reduced the number of enlisted men in the Marine Corps, and they were withdrawn from that station, which will probably happen, then I would have to employ civilians.

Mr. BYRNES. If marines are furnished, you would not employ civilian watchmen?

Admiral McVAY. No, sir; we would not employ them. I would then limit it to the employment of people to look out for the machinery. I have fixed the arbitrary figure of \$125,000 for that work.

Mr. BYRNES. How many marines will you require?

Admiral McVAY. We had 43 in December and 1 officer.

Mr. KELLEY. Do they work in 8-hour shifts?

Admiral McVAY. Yes, sir; they take tours of eight hours.

Mr. BYRNES. Your opinion is that it would be cheaper to have marines than to employ watchmen?

Admiral McVAY. Yes, sir.

Mr. BYRNES. What would you pay watchmen?

Admiral McVAY. The average is about \$3.68 per day, but I am more interested in the fact that the marines are much more efficient.

Mr. KELLEY. The expenses other than the maintenance of South Charleston, you will eliminate entirely?

Admiral McVAY. Yes, sir; if the treaties go through.

Mr. KELLEY. That would take off what appears in the third column?

Admiral McVAY. Yes, sir.

INDIANHEAD AND DAHLGREN, MD.

Mr. KELLEY. Are there any other places in a similar situation that of Charleston because of the treaties? How about Indianhead and Dahlgren? Will they come down some?

Admiral McVAY. Dahlgren and Indianhead are very much better last year. For Dahlgren and Indianhead we have the amount \$500,000 this year, as against something like \$1,500,000 last year.

Mr. KELLEY. What is the item of \$380,000 for Indianhead?

Admiral McVAY. I have cut that to \$200,000, because, in the first place, we will finish our program about the 1st of August for powder, and then the work for these airplane carriers will give us six months more. What I am figuring out now is what it will cost for upkeep, and not for running, and what it will cost to run it at reduced capacity in order to maintain our force. I think it is advisable to maintain our force. I have found, for instance, when we were turning out powder at the rate of 6,000 pounds a day the cost of the powder was high; so I told the inspector to turn out all the powder he could per day with the minimum force which he had, or just enough to carry the plant, and he cut the cost 15 cents per pound just by doing that.

When I figure out the maintenance charge and disregard all military reasons for continuing it, which I consider of the utmost importance, I think it will probably pay us to assume that extra charge per pound of powder.

Mr. KELLEY. Fifteen cents?

Admiral McVAY. Yes, sir.

Mr. KELLEY. The powder you are making there is of small caliber.

Admiral McVAY. No; we are finishing up for the 16-inch 45-caliber guns.

Mr. KELLEY. You will probably discontinue that right away?

Admiral McVAY. No, sir; that work will continue, I figure, until about the 1st of August.

Mr. KELLEY. We have how many ships which carry that?

Admiral McVAY. Three.

Mr. KELLEY. And you are making the powder for those ships?

Admiral McVAY. Yes, sir; then when we finish that we must stop on some 6-inch powder.

Mr. KELLEY. But you are going to run the plant at the very minimum?

Admiral McVAY. Yes; the very minimum at which I can maintain the force.

Mr. KELLEY. You do not mean to maintain the entire force, to maintain the organization?

Admiral McVAY. Yes, sir; that is all we have now, the small number of men that can operate the plant efficiently, and I think it would be very wise to go up in the cost of powder and keep the force together.

Mr. KELLEY. Have you cut the estimate for the Dahlgren Powder Ground?

Admiral McVAY. Yes, sir; we cut that to \$300,000. We have

Mr. KELLEY. Just give us the details of the work in sight there right along. 0,000. t, but the original to \$300,000.

Mr. KELLEY. Is there a power plant there?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And that would include the maintenance of the power plant?

Admiral McVAY. Yes, sir; the upkeep of the grounds and the tests of materials, as well as our range work. Of course a part of the expense is covered by experiments, ordnance, and a part of it will be covered in the cost of material for new construction.

Mr. KELLEY. Will you take the smaller guns down there?

Admiral McVAY. We have everything there.

Mr. KELLEY. You do not do any testing at Indianhead?

Admiral McVAY. Practically none. It is a considerable expense to continue that work at two places.

Mr. KELLEY. This will not be run very extensively, will it?

Admiral McVAY. Oh, yes; very extensively.

Mr. KELLEY. As much so as heretofore?

Admiral McVAY. Yes, sir; I expect to keep it going right along on tests and development work. It takes a long time to work out new things—fuses, ranging, test of projectiles, illuminating shells, and all that sort of thing.

Mr. KELLEY. There is not anything included in this \$300,000 for construction?

Admiral McVAY. Nothing whatever.

Mr. KELLEY. You have finished your construction entirely?

Admiral McVAY. We are not permitted to construct anything new.

Mr. KELLEY. This item is simply for the upkeep of the plant—the power and lighting?

Admiral McVAY. Everything of that kind. It is maintenance.

Mr. KELLEY. And necessary repairs and experimentation?

Admiral McVAY. Experimentation; yes.

Mr. KELLEY. It is really an operating expense rather than a maintenance expense?

Admiral McVAY. We call it a maintenance expense, but it is an operating expense.

Mr. KELLEY. How many civilian employees do you have there?

Admiral McVAY. We had 358 on the 1st of January.

Mr. KELLEY. Will you need that many next year?

Admiral McVAY. Yes, sir; we expect to keep practically all of them.

Mr. OLIVER. What is your officer personnel there, your enlisted personnel, and Marine Corps?

Admiral McVAY. There are 71 marines at the two stations, some at the powder factory and some at the lower station.

Mr. OLIVER. What is your officer personnel and enlisted personnel?

Admiral McVAY. We have 11 commissioned officers of the line and 6 warrant officers, making 17, and 10 of the staff. Of these 17 of the line 6 only are Naval Academy graduates.

Mr. OLIVER. What about your enlisted personnel?

Admiral McVAY. There are 83 in the enlisted personnel, both ashore and afloat.

Mr. OLIVER. Do I understand that the appropriation you are asking for does not include any item for new construction or for new building, but purely for the purpose of carrying on your experimental work and maintaining the station?

Admiral McVAY. And operating it, overhauling, making repairs, and all that sort of thing. Of course, when a road requires repairs we must fix it up.

Mr. OLIVER. You have concrete roads there now, have you not?

Admiral McVAY. No, sir; not concrete roads.

Mr. OLIVER. Then you have a railroad there for switching purposes?

Admiral McVAY. Yes, sir.

Mr. OLIVER. And you have an air field there?

Admiral McVAY. A very small one.

Mr. OLIVER. I thought you were contemplating enlarging that, and has it been enlarged?

Admiral McVAY. No, sir.

Mr. OLIVER. I thought it was to be doubled in size.

Admiral McVAY. No, sir.

Mr. OLIVER. You do all of your gun testing there, both large and small?

Admiral McVAY. Practically all; yes, sir.

Mr. OLIVER. Do you find it is a better station for testing your guns than the one you abandoned?

Admiral McVAY. Indianhead has not been an efficient station for the last 20 years.

Mr. OLIVER. In other words, you are not prepared at Indianhead to test your large guns?

Admiral McVAY. It is not possible to range a modern gun at Indianhead without taking a risk which I will not take.

Mr. OLIVER. And you find that at this place you can test both the small and large guns?

Admiral McVAY. Yes, sir. At Indianhead you can not range a gun, under ordinary conditions, beyond 12,000 yards, although on an exceptional day you can range it to 14,000 yards, but at Dahlgren we have a line of fire of 30 miles. We found that none of our range tables were correct because they had been calculated from firing at 8 degrees elevation only, and beyond a small range of 14,000 or 15,000 yards the ranges were calculated and were not determined as a result of firing and, therefore, were not checked; they were all incorrect, and that is a matter of the greatest importance in opening ranges for battle as well as throughout a battle, and it has not been possible, since long-range guns came into being, to properly range them at Indianhead, nor can it be made possible to do it there.

Mr. BYRNES. What is the reason?

Admiral McVAY. I would like to show you this map, as I think it would be better than all the talking I could do.

Mr. KELLEY. You want \$1,900,000, I take it, for the classified service?

Admiral McVAY. We cut that to \$1,000,000.

Mr. RAY. We made the cuts for South Charleston, Indianhead, and all those places.

Mr. KELLEY. Separately?

Mr. RAY. No, sir. We cut from \$1,900,000 down to \$1,000,000, and that includes the cuts for all the other stations.

Mr. KELLEY. That is about twice as much as you had before the war, but I suppose you can not cut any more now, and your wages are higher.

Admiral McVAY. The wages are higher, and the clerical and technical force of the bureau is divided up; Captain Pinney has arranged and rearranged it so that we have clerks doing work for two or three different sections.

In accordance with the wishes of the committee, the following summary is furnished, showing the composition of the estimate under the appropriation "Ordnance and ordnance stores" as originally submitted to Congress, and the reductions made which bring the total amount required down to \$10,700,000:

Original estimate as submitted to Congress:

Gun section.....	\$900,000
Turret mount section.....	300,000
Powder and explosives section (includes maintenance of ammunition depots).....	1,567,600
Torpedo section (includes maintenance of torpedo stations).....	1,450,000
Armor and projectile section (includes maintenance of ordnance plants and proving grounds).....	2,150,000
Fire control and optical section.....	2,000,000
Broadside mount and small-arms section (includes target rafts).....	950,000
Aviation ordnance section.....	350,000
Mine section.....	650,000
Assistant chief of bureau (ships' allotments, contingent, Marine Corps allotment, etc.).....	912,400
Classified employees.....	1,900,000

Total..... \$13,130,000

Reductions:

Reduction to new rates of pay at navy yards and stations (approximately 12½ per cent for mechanics, etc., and 17 per cent for clerical, drafting, technical force, etc.).....	1,000,144
Reduction in estimated cost of projectiles.....	115,252

Total..... 1,115,396

In round figures..... 1,130,000

12,000,000

Further reductions on account of scrapping ships—

Elimination of 16-inch target projectiles.....	129,000
Reduction in maintenance, South Charleston.....	125,000
Reduction in maintenance, Indianhead.....	180,000
Reduction in maintenance, Dahlgren.....	70,000
Reduction in classified force (clerical, technical, drafting, inspection, etc.) and miscellaneous savings....	800,000

Total..... 1,304,000

In round figures..... 1,300,000

Total..... 10,700,000

Limitation on amount to be expended for chemists, clerical, drafting, inspection, watchmen, and messenger service in navy yards, naval stations, etc., to be reduced from \$1,900,000 to \$1,000,000.

PURCHASE AND MANUFACTURE OF SMOKELESS POWDER.

Mr. KELLEY. For purchase and manufacture of smokeless powder you had \$200,000 last year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. What is your estimate for this year, Admiral?

Admiral McVAY. I cut that to \$167,000.

Mr. KELLEY. This is small ammunition?

Admiral McVAY. That is for the target-practice powder.

Mr. KELLEY. You have no stock of this powder on hand?

Admiral McVAY. We have not an adequate stock.

Mr. KELLEY. For target practice?

Admiral McVAY. No, sir.

EXPERIMENTAL WORK.

Mr. KELLEY. For experiments, Bureau of Ordnance, last year you had \$250,000; what is your estimate this year?

Admiral McVAY. I cut that to \$205,000.

Mr. KELLEY. You are keeping up the same general line of experiment?

Admiral McVAY. Yes, sir; we have all we can do.

CONTINGENT, BUREAU OF ORDNANCE.

Mr. KELLEY. For contingent, Bureau of Ordnance, you had \$20,000 last year?

Admiral McVAY. I cut that to \$18,000. There is no change in price for type of material carried, but I thought as long as we were cutting we would cut that, too.

NAVAL AMMUNITION DEPOTS, ETC.

IONA ISLAND, N. Y., REPAIRS TO SOUTH DOCK.

Mr. KELLEY. On page 118 there is ordnance storage in the Philippines. I imagine that would be a violation of the treaty?

Admiral McVAY. That is cut out. Cavite and Olongapo, of course, come out. At Iona Island, N. Y., that is merely repairing the dock so we can use it.

Mr. KELLEY. That is necessary?

Admiral McVAY. Yes, sir. That dock is about 300 feet long.

Mr. KELLEY. Three hundred by 25 feet. He says you could rebuild it for \$15,000?

Admiral McVAY. I do not believe you could rebuild that dock for \$15,000.

NOTE.—The south dock at Iona Island was used as the main landing before purchase by the Government in 1899, and, except for minor repairs at various times by the station force, is the original construction in use at the time of purchase. No new construction has ever been done, and the piles and stringers are in an extremely bad condition, about 40 per cent of which have been broken off or rotted to such an extent that they render no support to the dock whatever. Due to the heavy ice formation at this place in the Hudson River during the winter season, and the length of time the present structure has been in use, the repairs outlined are deemed of the utmost necessity, as this dock has been and is in constant use.

LAKE DENMARK, N. J., ADDITION TO WATER MAIN, ETC.

Mr. KELLEY. Is it necessary to put in the standpipe at Lake Denmark?

Admiral McVAY. Yes, sir. That is about 20 years old. It is apt to go out any time and then we would have no fire protection.

Mr. KELLEY. The next item is the roof that we talked about a while ago?

Admiral McVAY. Yes, sir.

CHARLESTON, S. C., MAGAZINE FOR WAR HEADS.

Mr. KELLEY. What about this magazine for war heads at Charleston? Is it necessary to build any more magazines?

Admiral McVAY. The trouble with the war heads is that the active destroyers are based on Charleston and the war heads are at present at Newport.

Mr. KELLEY. My understanding is that they are going to take the destroyers to Philadelphia?

Admiral McVAY. Those that go out of commission. The active destroyers will be based on Charleston.

Mr. KELLEY. There will be only 19 in the Atlantic, one division?

Admiral McVAY. Yes, sir.

Mr. KELLEY. They are asking for five squadrons of 19 each and four of them are going to the Pacific, one to the Atlantic, and eight in the Mediterranean, so I should think you could get along without that. We do not want to handicap you in any way.

Admiral McVAY. I think it would be very dangerous. These war heads have to be put off by themselves, because if you put them where the torpedoes are or around the station they may blow up.

As to the fuse and detonator house at Puget Sound, that is a very violent explosive and goes off very easily.

FARE ISLAND, CALIF., NAVAL AMMUNITION DEPOT, ADDITIONAL STORAGE FACILITIES.

Mr. KELLEY. The next item is the additional storage facilities at Fares Island, Calif. If it is an addition to the building, we can carry it; if it is a new building, we can not.

Captain PINNEY. That is a difficult question to answer. The previous appropriation gave us a certain length of building, which was cut off. The additional construction will be a continuation of the same building.

Mr. KELLEY. How far is this away from the yard?

Admiral McVAY. It is on the island, a couple of miles from the industrial section.

PEARL HARBOR, HAWAII, NAVAL STATION, LIGHTING AND POWER EXTENSION.

Mr. KELLEY. Is this storage building in Hawaii necessary?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Is that an addition to the building?

Admiral McVAY. It is additional storage facilities; we can not extend that.

Mr. KELLEY. The lighting and power extension, do you have to have that?

Admiral McVAY. Yes, sir; \$15,000.

Mr. KELLEY. They said that involved laying new conduits, taking the wires out of the air and putting them under the ground?

Captain PINNEY. Yes, sir; that is right. The temporary poles are a source of constant danger, because they blow down at every wind.

NAVAL TORPEDO STATION, KEYPORT, WASH., TORPEDO STORAGE.

Mr. KELLEY. The next item is the torpedo storage at Keyport, Wash. That is an addition to the building?

Captain PINNEY. I think that is; I am quite certain it is.

Mr. KELLEY. You have a building that is not quite the right shape, or something of that kind?

Captain PINNEY. It is a short building and there is room to extend and make it longer.

Mr. KELLEY. Then, it is an addition to the storage?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Do you think you have to have that this year?

Admiral McVAY. Yes, sir.

Mr. KELLEY. Last year you stated that you could get along without it?

Admiral McVAY. Yes, sir; but we have to have it now.

Mr. KELLEY. Because of the larger number of ships out there?

Admiral McVAY. Yes, sir.

FRIDAY, MARCH 17, 1922.

BUREAU OF MEDICINE AND SURGERY.

STATEMENTS OF REAR ADMIRAL E. R. STITT, SURGEON GENERAL, UNITED STATES NAVY; DR. W. S. GIBSON, CHIEF CLERK; AND MR. W. R. JOINER, CHIEF PHARMACIST.

SURGEONS' NECESSARIES, ETC.

Mr. KELLEY. We have with us this afternoon Admiral Stitt, the Surgeon General of the Navy, and his assistants. Admiral, you have for surgeons' necessities for the current fiscal year an appropriation of \$2,920,000. How much are you estimating for this year?

Admiral STITT. \$2,400,000.

Mr. KELLEY. I would be glad to have you make any statement you care to make about that reduction and how you brought it about.

Admiral STITT. In the appropriation for the fiscal year 1921 we had \$2,500,000, and then we were given a deficiency appropriation of \$500,000, making \$3,000,000. Of that \$3,000,000 we will turn in the sum of about \$558,000, and we calculate that of the \$2,920,000 that you gave us last year we will turn back into the Treasury about \$500,000. That represents expenditures of about \$2,400,000. We have been from month to month trying to decrease the expenditures by cutting down requisitions, but I rather think that we are getting to the point where it will be difficult to save much more.

Mr. KELLEY. Have you the details of this estimate by stations?

Admiral STITT. Yes, sir.

Mr. KELLEY. This table covers the civil establishment and medical supplies?

Mr. JOINER. That is for medical supplies alone.

Mr. KELLEY. What is the total amount required for surgeons' supplies out of this \$2,400,000?

Admiral STITT. \$1,700,000 is what we have estimated for the civilian employees in the hospitals, and then the remainder, including small amounts for special diets, is for medical and surgical supplies and takes up the rest of the \$2,400,000.

Mr. KELLEY. The civilian employees take \$1,700,000 and the estimate for supplies is \$700,000?

Admiral STITT. Yes, sir; including an amount for special diets.

Mr. KELLEY. The \$1,700,000 for civilian employees includes all of the help in all of the hospitals, exclusive of the nurses?

Admiral STITT. Exclusive of the nurses and the Hospital Corps. It includes the carpenters, painters, plumbers, cooks, mess attendants,undrymen, and all civilian employees that are necessary in conducting a hospital service.

Mr. KELLEY. If we should reduce the Navy to 65,000 men, or some such number, would it make some difference in this item of \$1,700,000 for civilian employees in hospitals?

Admiral STITT. We could reduce only by putting hospitals out of commission if they were not needed.

Mr. KELLEY. That would probably follow, would it not, with the Navy reduced to 65,000 men.

Admiral STITT. Wherever we see we are justified in doing so we do that. For instance, since I appeared before you last year, we have turned over our hospital at Fort Lyon, which was the tuberculosis hospital of the Navy, to the Veterans' Bureau. It was, as you will remember, about an 800-bed hospital that could possibly be expanded into a 1,000-bed hospital. We had only about 150 Navy patients in it. By reason of the fact that those tuberculosis cases in the Navy were entitled to war-risk compensation, those patients were charges of the Veterans' Bureau rather than of the Navy. Therefore, we found that we could not justify ourselves in using that hospital. The Veterans' Bureau was very desirous of having a large hospital of that kind, and it was given to them by Executive order. The hospital, with its equipment and everything of that sort, was turned over to them October 31, 1921, but it was run by Navy personnel up until March 1, 1922. Now they are running it with Public Health Service personnel. As I have said, that hospital was put of commission, and, of course, if we saw that we would hardly be justified in keeping a hospital for the Navy, we would probably follow that procedure and turn it over to the Veterans' Bureau, if they should be in need of such a hospital.

Mr. KELLEY. You would concentrate your patients into fewer hospitals, and turn over the excess hospitals to the Veterans' Bureau?

Admiral STITT. Yes, sir.

CARE OF PATIENTS OF VETERANS' BUREAU.

Mr. KELLEY. How many patients are you taking care of for the Veterans' Bureau in naval hospitals?

Admiral STITT. We are offering them 3,000 beds. That is one of the great difficulties we have. For instance, at the Chelsea Hospital, near Boston, we offered them 539 beds. We had figured for the Navy's needs a certain amount in the way of hospital wards for caring for contagious diseases, where we had only a few cases of each kind of disease, and certain wards had to be put out of commission for painting, etc. We figured that we could let them have 539 beds. We thought that they would use every one of those beds, because at that time there were more patients in that district than there were beds available, but at the present time they are using only 339. In

other words, there are 200 beds available for them that are not occupied. While we have 3,000 beds that we are offering them, they have only 1,394 patients for those 3,000 beds.

Mr. KELLEY. You could take 1,700 more patients from the Veterans' Bureau than they are now giving you?

Admiral STITT. With additional personnel, yes, sir. If they should tell us, "We are going to give you 100 additional patients within the next month or so," then we would try to get additional nurses and doctors sent to the hospitals so as to take care of that additional number of patients.

Mr. OLIVER. Do they contribute to the expense of caring for the patients that they send to you?

Admiral STITT. That arrangement was made by my predecessor, Surgeon General Braisted.

The CHAIRMAN. They pay about \$4.25 per day per patient?

Admiral STITT. \$3.

The CHAIRMAN. But the total cost would run up to that?

Admiral STITT. Yes, sir; but at the present time we are not paid for the personnel—that is, for the medical personnel, nursing personnel, and the Hospital Corps personnel—except to this extent: You may remember, Mr. Kelley, that I asked your permission last year to take up with the Bureau of Navigation the matter of their enlisting 500 additional Hospital Corps men for us, so as to be able to take care of Veterans' Bureau patients. The Veterans' Bureau agreed to that and transferred to "Pay of the Navy" \$410,000 for the pay of those additional Hospital Corps men, but with the exception of that amount, the other charges for personnel have been borne by the Navy.

Mr. KELLEY. How do you fix this charge of \$3 per patient?

Admiral STITT. We held a conference with the Veterans' Bureau, or, rather, with the War Risk Insurance Bureau, as it was then. During the fiscal year 1921 the cost of subsistence and maintenance of buildings, including additional power plants, and everything of that sort accounted for in all of the hospitals that were taking care of patients of the Veterans' Bureau, was \$3.12. We are coming down in cost all the time, and I believe that cost would not be 3 cents away from the figure of \$3, one way or the other, if we took the cost up to date, exclusive of the personnel.

Mr. KELLEY. You have to have more nurses, of course?

Admiral STITT. Yes, sir.

Mr. KELLEY. And also more doctors on account of the war-risk patients?

Admiral STITT. The Federal Board on Hospitalization has estimated—and that is their requirement of all contract hospitals taking care of Veterans' Bureau patients—one doctor to 20 patients, and one nurse to 10 patients; so that with those requirements we would have to have a number of medical officers that we have not felt necessary for the Navy. We must meet their requirements, and we have had to add to the number of our doctors, over what we considered necessary for the Navy. As I probably expressed it last year, it is very difficult for us to form any estimate as to how many Navy patients we may expect in the hospitals continuously. That is to say, when the fleet goes South, the number of Navy beds in the New York hospital may fall off one-third or more, but when they come back—

Mr. OLIVER (interposing). When you find it necessary to employ additional medical help in order to meet the demands of the Veterans' Bureau, do you give to those physicians you call in a permanent status in the Medical Corps of the Navy?

Admiral STITT. We have not had to call in any. We have always made use of our own personnel, but recently we have done that by opposing a measure that I think I spoke to you about last year, and one that I feel is very important to our corps—that is, giving our medical officers an opportunity to take post graduate courses. They get rusty unless they have the opportunity of taking a three or four months course and brushing up on medicine and surgery. Unless they do that, they can not do the best work.

Mr. KELLEY. When you find that you need more doctors at a place, I suppose you meet the need by moving your physicians from one hospital to another, where the naval necessities make that possible.

Admiral STITT. Yes, sir.

Mr. KELLEY. For instance, if you had a hospital at San Diego and the fleet had left there so that you did not need so many doctors out there, you would assign the surplus number to some other places where you had a deficit?

Admiral STITT. Yes, sir.

Mr. KELLEY. So that it is not any great load, or what you are doing is not to take a load on here on that account?

Admiral STITT. Except that we have not been able to give the members of the Medical Corps an opportunity for post graduate work and study so as to keep them up to date.

Mr. KELLEY. Outside of that, we are not employing any more doctors than you would employ to handle the regular naval business?

Admiral STITT. Yes, sir.

Colonel ROOSEVELT. I do not think that is quite straight.

Admiral STITT. We have, as I have said, curtailed our professional men, and we have not provided a personnel for 3,000 of those patients. We have been able to take care of 1,394 of them, which is about the maximum number that they have sent us, without employing any personnel outside of the Medical Corps of the Navy.

NUMBER OF DOCTORS AND TOTAL NUMBER OF PATIENTS.

Mr. KELLEY. How many doctors have you altogether?

Admiral STITT. Eight hundred and two at present.

Mr. KELLEY. What is your total hospital population, or total number of patients?

Admiral STITT. The last figures were 4,805.

PROPORTION OF EXPENSE PAID BY VETERANS' BUREAU.

Mr. KELLEY. You do not get anything from the Veterans' Bureau—anything except the cost of the food and the care of the patients—that is, you do not get anything for taking care of the buildings or on account of the doctors and nurses?

Admiral STITT. For the maintenance of the buildings, yes, sir, and for repairs to the buildings. They also pay their part of the expenses of subsistence, and pay of the civilian employees, but not the pay of those coming out of Pay of the Navy, including Medical

Corps, Nurses Corps, and Hospital Corps, with the exception of the \$410,000 which they transferred to Pay of the Navy.

Mr. OLIVER. Do you fix that amount according to the relative number of naval men and Veterans' Bureau men in the hospitals?

Admiral STITT. We have not up to the present time made any dividing line as to the classes that we are to take care of.

Mr. OLIVER. How do you apportion the expense? You say that they contribute to the expense, and I want to know how their proportion is ascertained?

Admiral STITT. It is based upon the proportionate number of patients that they have there, and our expenditures.

Mr. OLIVER. I presume it is based upon the number of patients that they have in the hospitals as compared with the number you have?

Admiral STITT. Yes, sir.

ADDITIONAL MEDICAL OFFICERS NEEDED FOR INCREASE IN NUMBER OF PATIENTS.

Mr. OLIVER. Now, assuming that they should hereafter avail themselves of more of your beds than they are using now, do I understand that you will find it necessary to employ additional medical help?

Admiral STITT. We would require 150 medical officers for 3,000 patients.

Mr. OLIVER. Additional medical officers?

Admiral STITT. Yes, sir; additional medical officers.

Mr. OLIVER. How would you expect to employ them, or what status would they have in the Medical Corps of the Navy?

Admiral STITT. My idea was that where we could, it would be the policy to use medical officers now in the Navy, and that would be 150 plus our number. I have always felt that we should adhere to sixty-five one-hundredths of 1 per cent. The war showed us that we could get along with sixty-five one-hundredths of 1 per cent.

Mr. OLIVER. This will not always be a continuing service that you will be required to render.

Admiral STITT. That is true.

Mr. OLIVER. I think it would be a mistake to give permanent appointments in the Medical Corps to any large number of doctors purely for the purpose of looking after a temporary need.

Admiral STITT. Yes, sir. I believe, however, it would be wise in the event Congress reduces the authorized strength of the Navy to such a figure that our present 802 officers would be in excess of sixty-five one-hundredths of 1 per cent to provide a means whereby the excess number could be retained in service instead of providing means to furnish temporary appointees.

Mr. KELLEY. You would not be authorized to do that, would you?

Admiral STITT. No, sir; except that we are allowed by law to appoint 25 acting assistant surgeons. At the present time five are used in recruiting, and there are 20 vacancies in the acting assistant surgeons corps. Now, I have taken the matter up with the Director of the Veterans' Bureau as to their paying absolutely for those appointed men. They are not commissioned men.

Mr. OLIVER. That is the information I have been trying to elicit.

Mr. KELLEY. That is outside of the \$3 they pay for taking care of patients?

Admiral STITT. Yes, sir.

CIVILIAN EMPLOYEES.

r. KELLEY. Referring to this \$1,700,000 spent for civilian employees, do you make any large saving in what you had expected to find by reason of the fact that the Veterans' Bureau has paid a part of these expenses?

Admiral STITT. That \$3 has been a credit to the naval hospital fund, but not to the Medical Department. So that this \$1,700,000 is for the civilian employees. Of course, some of that \$3 is really compensation for these civilian employees.

r. KELLEY. So that while you might not apply the fund directly, it is available to reduce the amount really required for civilian employees?

Admiral STITT. It would be, except for the fact that the naval hospital fund, sir—we feel we will have about \$200,000, possibly, at the end of this fiscal year, but, for instance, on January 31, 1922, we were overobligated \$2,092,000 in the naval hospital fund.

r. KELLEY. Then while it is true that if it were applied it would reduce this amount, yet you have kept it in the other fund because the fund was overdrawn?

Admiral STITT. Yes, sir; and we are afraid we are going to run a deficit in that fund, not this year or next year but in about five years.

r. KELLEY. If the Navy is reduced as I stated awhile ago, how much of a reduction do you think could be made in each of these items of \$1,700,000 for your civilian force and \$700,000 for supplies?

Admiral STITT. It would simply be by putting hospitals out of commission or turning them over to the Veterans' Bureau; that would be the only way in which we would save money.

r. KELLEY. If the establishment is reduced one-third would you be able to reduce these items one-third?

Admiral STITT. We could not in hospitals, because to keep a hospital up in the way of maintenance, painting, general repairs, and repairing of roofs, etc., is quite an item, and, as you know, at the present time so many of our hospitals—at least three-fourths of the capacity—are in these temporary buildings; they are deteriorating very rapidly and the only way we can keep them in good condition is by spending a good deal of money on them or by the use of civilian employees who are carpenters, painters, and so on, having them constantly at work in repairing these buildings.

r. KELLEY. What would you suggest would be a safe reduction in these two items if we reduced the strength of the Navy by one-third?

Admiral STITT. For instance, take the hospital at Great Lakes, where, at the present time, we have 600 Veterans' Bureau patients and only about 65 Navy patients; if that hospital were reduced by the Veterans' Bureau funds we could save \$188,837.76.

r. KELLEY. If they would take it off of your hands entirely?

Admiral STITT. Yes. They are very short of personnel at Great Lakes hospital, and what they are desirous of doing—

r. KELLEY (interposing). They do not seem to be short of money which to buy hospitals all over the country, so why can they not take one off of your hands without much trouble?

Admiral STITT. It is full with their patients now—600—and they are asking us to provide for 400 more; that is, they say in that district there are so many beneficiaries needing hospitalization. I was out there a week or so ago and went into the question of whether we could expand for the Veterans' Bureau from the present 600 up to 1,000 patients.

Mr. KELLEY. If they took the hospital entirely off of your hands then they would have to furnish the doctors and nurses, and it would increase the cost to them about how much per patient?

Admiral STITT. It would mean an increase, I should say, of about \$1.30 per patient per day; that is, over the \$3 they now pay us. We have figured out the personnel in the different hospitals, and where they have a large number of patients, of course, the overhead is less and the cost per patient is smaller, so I think it would be somewhere around \$1.30 for the doctors, female nurses, and so on.

Mr. KELLEY. Making \$4.30 in all?

Admiral STITT. Yes, sir.

The CHAIRMAN. That is one of the best hospitals in the country, is it not, and the hospital is in a permanent building?

Admiral STITT. There is a permanent building, sir, but the permanent building has only a capacity of about 150 patients; then we have different types of ward buildings; they were constructed during the war of wood and they are buildings that will probably take care of 250 contagious cases, for which they were originally intended, but we are now using them for the neuropsychiatric patients of the Veterans' Bureau. However, they are exceptionally comfortable and well-planned ward buildings; they are plastered inside, have slate roofs on them, and except for the fire risk you could not ask for more desirable buildings.

The CHAIRMAN. Are they east of the track or west of the track?

Admiral STITT. They are the ones between the station proper and the permanent building of the hospital. The temporary buildings at the Great Lakes, on the whole, are about the best of our wooden buildings.

Mr. KELLEY. This \$3 which you get from them includes their share of everything, every expense about the hospital except the doctors, nurses, and attendants?

Admiral STITT. And it includes the civilian employees—that is, cooks, mess attendants, and everything of that sort.

Mr. KELLEY. So that the doctors and nurses are practically the only ones not counted in this \$3 cost?

Admiral STITT. Yes, sir. But, as I have said before, they have transferred to pay of the Navy \$410,000 to pay for 500 Hospital Corps men. On account of the shortage in funds under "Pay of the Navy" the Bureau of Navigation did not feel justified in allowing us to enlist any more Hospital Corps men.

Mr. KELLEY. So, in addition to the \$3 the Veterans' Bureau pay you \$410,000 for Hospital Corps men?

Admiral STITT. Yes, sir.

Mr. KELLEY. Can we now get an answer to the question I asked while ago, namely, if we should reduce the Navy by one-third for next year, how much could be taken off of these two items?

Admiral STITT. As I said, sir, so many of our buildings—

Mr. KELLEY (interposing). Can you make a fair estimate?

Admiral STITT. So many of our buildings are these wooden buildings that we have to spend a great deal of money on repairing the roofs, and so on, and if we keep that hospital open I really feel we could not save anything. The only thing would be to turn it over to the Veterans' Bureau or let those temporary buildings go.

Colonel ROOSEVELT. In that connection it might interest you to have Admiral Stitt outline to you or give you an example of the troubles we run into of that kind, particularly the situation with which we are confronted in Newport; and then, also, Admiral, is not the situation in Chicago complicated by the fact that the Veterans' Bureau does not seem to be able to get psychiatric doctors out there, that we seem to be the people and the only people who can furnish them? Is not that so out there?

Admiral STITT. There are probably fewer specialists of that sort, considering the demands for such men, than any other personnel—that is, medical personnel—so much so that the Public Health Service has been unable to get sufficient men of that sort, and we have had to draw on the Navy for every man we had who had specialized in psychiatry and put them out at the Great Lakes to attend to the 300 psychiatric patients we have there. One of the troubles we are having with the district supervisor's office, and the only one, I may say, from my interviews with them the other day, because they then said "it is the cleanest hospital we have," they spoke of it in the highest terms, have the best food, and they have absolutely nothing to complain about except that we have not enough medical officers here, and particularly psychiatrists.

Mr. OLIVER. Coming back to the question asked by Mr. Kelley, I assume you will find it necessary to maintain a hospital near every station the Navy maintains and that if you abandon any it would be a hospital that would be far removed from any permanent station maintained by the Navy, assuming that the Navy might abandon some of its present stations if the personnel is largely reduced?

Admiral STITT. Yes, sir; we abandoned the New Orleans hospital as soon as the station was abandoned.

Mr. OLIVER. So you could not now say what hospitals you might be able to turn over to the Veterans' Bureau for their use and thus save expense to the Navy until you first knew just where the men of the Navy whom we provide for will be stationed?

Admiral STITT. Yes, sir.

Mr. OLIVER. In other words, your action would have to follow the action of the Navy Department in reference to determining what centers of activity would be?

Admiral STITT. Yes, sir.

Mr. KELLEY. You expect to have the \$410,000 supplied by the Veterans' Bureau for the Hospital Corps another year?

Admiral STITT. I expect that to be supplied and the expenses of salaries and medical men.

Mr. KELLEY. Of course, the Hospital Corps men are Navy people; they are not civilians?

Admiral STITT. They are Navy people; yes, sir.

SUPPLIES.

Mr. KELLEY. How about supplies? Would they be reduced if the Navy were reduced?

Admiral STITT. Yes, sir. For supplies we are only asking \$700,000, which includes the special diet on ships and at stations. Now, the biologicals, taking up the statement we have furnished you, amount to \$100,000, and they include such items as serums and vaccines. We have no stock of biologicals on hand; that is, we just buy as we have to send them out, because they must be absolutely fresh, and we can never tell about the amount of biologicals which will be required. There may be an epidemic of smallpox, as we have had during the last year in Haiti, and so on, which will bring great demand for biologicals, so I do not think we could safely consider less than \$100,000 for them. It may be we will be fortunate and then we can turn back whatever money we do not use, just as we have done this year and the prior fiscal years.

Mr. BYRNES. How much do you expect to spend for biologicals this year?

Admiral STITT. It is a matter that depends on how much diphtheria we have, how much cerebrospinal meningitis we have, and how much vaccination we have to do for smallpox.

Mr. BYRNES. Do you know how much you have spent in the seven months?

Admiral STITT. \$67,000 in the first two quarters. We have had to vaccinate a lot for smallpox on account of its presence in Haiti and Santo Domingo.

Mr. OLIVER. In making your estimate for next year, where are the hospitals located that you now contemplate will be maintained?

Admiral STITT. I will furnish a list for the record.

(The list referred to follows:)

United States naval hospitals within the continental limits of the United States: Portsmouth, N. H.; Chelsea, Mass.; Newport, R. I.; New York, N. Y.; League Island, Pa.; Washington, D. C.; Annapolis, Md.; Norfolk, Va.; Charleston, S. C.; Parris Island, S. C.; Key West, Fla.; Pensacola, Fla.; Great Lakes, Ill.; Puget Sound, Wash.; Mare Island, Calif.; San Diego, Calif.; total, 16.

United States naval hospitals without the continental limits of the United States: St. Thomas, Virgin Islands; Pearl Harbor, Hawaii; Guam; Canacao, P. I.; Yokohama, Japan; total, 5.

Admiral STITT. There are two reasons why I feel our revenues may fall off. First, in 1914 it was provided that if a man got an honorable discharge all of his fines and forfeitures would be restored to him; and if a man was discharged for bad conduct, provided he had been court-martialed during his enlistment, one-half of the fines and forfeitures were to be returned to him. The auditor has not settled the amount of the fines and forfeitures for a period of four or five years, so we do not know where we stand, but we do know our receipts are going to be very much less on account of returns to men who get an honorable discharge. Then, Mr. Denby signed something the other day that is going to further reduce our income from fines and forfeitures; that was to the effect that to save "Pay of the Navy," when a man was being court-martialed they were simply to reduce him in rating, which, of course, would have the effect of cutting his pay instead of providing for fines and forfeitures, so we feel that is going to cut our income very much. The Judge Advocate General told me

id not know how much that would reduce our revenues, but he
ight it would reduce them materially.

r. KELLEY. This fund is dependent very largely on the size of the
sted force?

dmiral STITT. Yes, sir.

r. KELLEY. So if we cut the force it would cut this fund next year?

dmiral STITT. It goes automatically, sir.

RECEIPTS FROM VETERANS' BUREAU.

r. KELLEY. How much do you get a month from the Veterans'
eau?

r. JOINER. We have received this year \$644,000.

r. KELLEY. Up to this time?

r. JOINER. Yes, sir.

r. KELLEY. That is on account, is it?

r. JOINER. Yes, sir.

r. KELLEY. They do not pay in advance?

r. JOINER. No, sir.

r. KELLEY. You render your bills and they have paid you that
h in eight months?

r. JOINER. Yes, sir.

HOSPITAL FUND.

r. OLIVER. I would like to have the admiral very briefly state
t the hospital fund is used to pay and what the fines and for-
ire fund is used to pay.

dmiral STITT. We take the amount out without regard to the
ce of income, whether the 20 cents a month or from fines and
itures.

r. OLIVER. But I mean what are the proper charges against the
ital fund and what are the proper charges against the fines and
itures fund?

dmiral STITT. They are one thing.

r. OLIVER. Then what are the proper charges?

dmiral STITT. All charges in connection with taking care of our
itals, subsistence, maintenance of the hospitals, with the excep-
of the civilian employees, who are cared for under the Medical
artment, and some minor expenditures under contingent; but
tically all of the expenses of the upkeep of our hospitals.

r. OLIVER. Is this fund used to supplement the appropriation
ake to keep the hospitals in operation?

dmiral STITT. As I say, it bears the expense of running the hos-
s with the exception of the appropriation for the civilian em-
ees.

r. KELLEY. We do not make any appropriation for repairs?

dmiral STITT. No, sir. We have asked you for two years to
us about \$350,000 for repairs, but your committee thought it
d be best to let the hospital fund bear that expense.

r. KELLEY. Coming back to the question I asked a while ago,
\$644,000 which you have received is at the rate of \$1,104,000 for
ear. Now, about what balance did you have on hand in the
ital fund on the 1st of last July, or whatever date you may have?

Admiral STITT. On January 31, 1922, it showed an overobligation of \$2,092,639.09; at the present time we know, from investigation of the matter, that the overobligation is only \$1,690,919.32.

Mr. KELLEY. Leaving the overobligation end of it out—because I am not quite clear in my mind what you mean by that—you tell us how much money you had on hand on the 1st of last July this fund. Doctor Gibson, you can tell us that, can you not?

Doctor GIBSON. No; I do not recall the Treasury balance, but the overobligations were more than \$1,600,000.

Mr. KELLEY. Can you estimate, in the absence of accurate information, and then put it in accurately? I would like to know about at this moment.

Mr. JOINER. The Treasury balance was \$314,098.04.

Mr. KELLEY. That was the Treasury balance in this fund on the date?

Mr. JOINER. Yes, sir.

Mr. KELLEY. If you augment it by \$1,104,000 you have \$1,372,912.04 in this fund for this year?

Mr. JOINER. Yes, sir.

OVEROBLIGATIONS.

Mr. KELLEY. Tell me what you mean by "overobligated."

Admiral STITT. That we are that much in debt.

Mr. KELLEY. To whom?

Admiral STITT. To "General account of advances," but we feel we have against the \$1,690,000 over \$2,000,000 which will come in from the fines and forfeitures when they are eventually taken up, and then if the Treasury should square our accounts we would at the present time be approximately \$400,000 to the good.

Mr. KELLEY. What do you use this fund for besides repairs?

Admiral STITT. It pays for all provisions that are used in the hospitals; it pays for the coal, for the lighting and the heating, practically every expense at a hospital, except we have in the contingency item a small appropriation for the care of the grounds; that is, buying seed and flowers, and caring for the trees, and things of that sort.

Mr. OLIVER. Does it pay for medical supplies and surgical instruments?

Admiral STITT. The medical supplies and surgical instruments are drawn from this Medical Department fund, sir.

Mr. KELLEY. Let me get this straight. The over obligation you speak of is a Treasury account?

Admiral STITT. It is a Treasury account; yes, sir.

Mr. KELLEY. You have paid the bills?

Admiral STITT. Bills were paid to the extent of \$5,025,000, and then others are outstanding to the extent of \$235,000, making \$5,260,000; the balance in the Treasury is \$1,538,472, and then there are these others—credits to fund not settled by auditor, \$1,378,912.04 and estimated credits which have not yet been forwarded to audit \$651,683, making \$3,569,080.

Mr. KELLEY. All these over obligations are cumulative from during the war and back for some little time—they are not your overobligations, are they, since you have been in office?

Admiral STITT. No, sir; they have been coming on.

Mr. KELLEY. And undoubtedly they have been paid out of "General account of advances of the Navy"?

tor GIBSON. Yes, sir; that money is all due to the general account of advances.

niral STITT. Although there is no appropriation.

KELLEY. I understand it now.

BYRNES. You have obligated to the extent of \$5,250,000?

niral STITT. No, sir; as it stands on the 31st of January our obligations are \$1,690,919.

BYRNES. Does that include the amount which you estimate you get from fines and forfeitures?

niral STITT. That amount is in course of settlement by the court. We feel that we have at least \$2,000,000 which is in the court's office, but has not been adjusted.

BYRNES. When will you know that?

niral STITT. As I understand, for some of those accounts, it is from three to five years.

BYRNES. That is rather hopeless. You believe if they would you would have enough to pay these obligations?

niral STITT. And probably \$500,000 more.

BYRNES. Upon what do you base that belief?

niral STITT. We base that from knowing the amounts that have flowing in from fines and forfeitures in the past.

BYRNES. And judging from that, you believe that you have had to leave you a net balance of \$500,000?

niral STITT. Yes, sir.

BYRNES. But there is no chance of your ascertaining the total amount to which you are entitled from fines and forfeitures because of delay in auditing?

niral STITT. They say that it will, perhaps, be a year and a half; they are a little more rapid in the auditing now.

KELLEY. You will have \$268,925 on the 1st of July in cash?

niral STITT. Yes, sir.

KELLEY. If you take in \$1,104,000, that will give you \$1,327,000; which this fund will have during the year?

JOINER. More than that, because we get an estimated revenue of \$7,000 from the 20 cents, and we also get the fines and forfeitures transferred.

JOHN ROOSEVELT. That estimated revenue per month is based upon how many men?

JOINER. On the actual number of men in the service.

KELLEY. That will hold good up to the first of July or thereabouts. What would be your estimate of the total revenues for this year for the year?

JOINER. \$1,200,000 in addition to that.

KELLEY. In addition to what?

JOINER. \$1,679,000.

KELLEY. Where is that coming from—fines and forfeitures?

JOINER. Yes, sir.

KELLEY. During the year you will have \$2,879,925 out of which you are to care for your buildings and such repairs as you have made; pay for all of your operating expenses exclusive of the pay of the Navy?

niral STITT. Yes, sir.

JOINER. And the civilian employees.

KELLEY. What does it include?

Admiral STITT. It includes the provisions that we purchase, the coal, all the paints, everything in repairs to buildings, every expenditure that the hospitals have other than the pay of the officers, nurses, and hospital corps men, and civilian employees, medicines, surgical dressings, and things of that sort. That runs over \$2,000 a day for patients subsisted.

Mr. KELLEY. Into what fund does the allowance you receive from the Navy for the commissary go?

Admiral STITT. That goes into the naval hospital fund.

Mr. KELLEY. Would that increase this estimate?

Admiral STITT. No; decrease it to the extent of the average daily subsistence loss which amounts to over \$2,000.

Mr. KELLEY. You take out of this fund the difference between what it costs to subsist your patients and what the Navy pays you?

Admiral STITT. Yes, sir. You reimburse us 75 cents in the present fiscal year whereas it costs us about \$1 a day. You reimburse us for a Hospital Corps man only 50 cents a day, but he eats the same food that the patients do, so we lose 50 cents a day on every Hospital Corps man.

Mr. KELLEY. All of this loss and the repairs come out of this fund?

Admiral STITT. Yes, sir.

Mr. KELLEY. Suppose by some line of legislation we should wipe out the bookkeeping transaction at the Treasury and start afresh. Would the receipts that normally flow into this fund from different sources, fines and forfeitures and the allowances made by the Navy, take care of the situation?

Admiral STITT. I think it would if the revenues from fines and forfeitures amounted to over a million and hospital tax to about one quarter million a year as they do to-day.

Mr. JOINER. It would not if you should wipe it out at present with these reductions that are now in effect.

Secretary DENBY. How much do you estimate that it would be?

Mr. JOINER. I have no estimate. The source of revenue would be very materially reduced and we would not have any real revenue.

Mr. KELLEY. That is because of this order of the Navy Department introducing a new element of uncertainty?

Mr. JOINER. Yes; and the former one about returning all fines and forfeitures if they get an honorable discharge—

Mr. KELLEY (interposing). I imagine the Navy Department in making the orders did not take into account the effect they might have?

Secretary DENBY. I think they did not. It is a double arrangement, and very serious.

Mr. KELLEY. Would it be possible to make any estimate of what it cost last year?

Mr. JOINER. No, sir.

Secretary DENBY. Have you any way of showing what the fines and forfeitures amounted to as the result of courts-martial general?

Admiral STITT. It is back four or five years; we know what it amounted to in 1916.

In 1916 it amounted to \$520,000.

What you really do is to pay your losses on sub-

fund?

Mr. KELLEY. As long as the Veterans' Bureau contributions come and are put into this fund you would not have any difficulty about paying for making the repairs?

Admiral STITT. No, sir.

Mr. KELLEY. If we take care of the present, possibly the Secretary the Navy may reconsider this if it becomes embarrassing or at least advise us in time so that we can make an appropriation to cover any deficiency.

Mr. OLIVER. Was it an administrative order that authorized the payment of fines and forfeitures to this fund?

Doctor GIBSON. That is a matter of law.

Mr. OLIVER. How could the Secretary, by his order, change the law?

Doctor GIBSON. He has not. The Secretary has directed that in cases of general courts-martial the loss of pay shall be calculated at the lowest pay of the rating, bringing a seaman from \$70 down to \$23, perhaps, but we still get the reduced pay as the law provides, his order provides that a man forfeits \$23 instead of \$70 from "Pay of the Navy," and the naval hospital fund suffers the loss.

Mr. OLIVER. It reduces the fine?

Doctor GIBSON. Yes, sir.

Mr. BYRNES. And "Pay of the Navy" is only charged up with \$23 instead of \$70?

Mr. JOINER. The amount credited to the hospital fund.

CONTINGENT, BUREAU OF MEDICINE AND SURGERY.

Mr. KELLEY. For "Contingent, Bureau of Medicine and Surgery," you had \$500,000. You are asking for how much now?

Admiral STITT. \$435,000.

Mr. KELLEY. In case the Navy is reduced, could we reduce this appropriation any?

Admiral STITT. That appropriation is one which at different times this year has been reported as having a deficiency, but we have been able to show a bookkeeping result. Mr. Denby has looked at me when it has come up in council and it was stated we had a deficiency under the contingent appropriation. We have only saved it by not doing what I asked you for, to furnish money for post-graduate instruction. We have curtailed those funds. Many things have ought up the expenditures so that I do not believe there can be a reduction to any extent by reducing the number in the Navy. For instance, the expenditure for dental work that has been done where a Navy dentist has not been available and for medical attention where a naval medical officer has not been available. We have our estimates by different headings of that sort.

BOOKS AND STATIONERY.

Mr. BYRNES. Tell us how you get \$50,000 for books and stationery.

Admiral STITT. We have asked for \$25,000 for books. Those are medical books. We have to give the men recent editions of medical books so that they can keep up with the present practice. I think one of the most important things, as important really as surgical instruments or books, is to furnish the medical officers on ships and in the hospitals with latest editions.

Mr. BYRNES. Did you spend \$50,000 for that purpose?

Admiral STITT. \$25 000 for books, \$24,000 for stationery, and for the binding of journals, \$1,000.

Mr. BYRNES. In other departments we have found that we could make a reduction in the stationery for the next fiscal year by reason of the reduction in the cost.

Admiral STITT. We have been writing and writing—

Mr. JOINER. The hospitals have been spending \$1,000 to \$1,200 a quarter for stationery, and we reduced it.

Mr. BYRNES. I know that in the hearings upon the Interior Department bill we had the representative of the Printing Office—Mr. French will remember—and he told us as to stationery that we would be justified in figuring on a 15 per cent reduction, as I recall.

Mr. FRENCH. Yes; that is right.

Mr. JOINER. We have made almost a 30 per cent reduction in what we were spending before.

Mr. BYRNES. The year before; but what are you spending this year—\$50,000?

Mr. JOINER. We are not spending \$25,000 for books this year. We are spending more for stationery and less for books.

Mr. BYRNES. How much for stationery?

Mr. JOINER. \$35,000 for stationery and \$15,000 for books.

Mr. BYRNES. And you propose to spend more for books next year?

Mr. JOINER. Yes, sir.

Admiral STITT. We can save on one item in this contingent fund and in another item we are obliged to spend more money.

Mr. KELLEY. You have reduced the estimate \$65,000 from the appropriation last year?

Admiral STITT. Yes, sir.

Mr. KELLEY. You have some new language, the item bringing home remains of officers?

Admiral STITT. Yes, sir.

BRINGING HOME REMAINS OF OFFICERS, ETC.

Mr. KELLEY (reading):

The unexpended balance of the appropriation "Bringing home remains, etc., Navy Department, 1921-1922," contained in the naval appropriation act approved June 4, 1920, or so much thereof as may be required, and for the same objects specified therein, is continued and made available for the fiscal year ending June 30, 1923.

How much of a balance is there in that fund?

Admiral STITT. \$206,396.20.

Mr. KELLEY. That is the Treasury balance of this fund?

Admiral STITT. Yes, sir.

Mr. KELLEY. That is as of January 1. How much do you estimate you will spend out of that by the end of the year?

Admiral STITT. About \$65,000.

Mr. KELLEY. You are asking us to reappropriate \$141,000.

Admiral STITT. We put in reserve \$67,222.

Mr. KELLEY. You want that reappropriated?

Admiral STITT. Whatever balance may remain over that, which amounts to about \$65,000.

Doctor GIBSON. You made no appropriation under this title last year, you just continued it for a year.

Mr. JOINER. \$65,000 not considering the \$67,000 which we have in reserve.

Mr. KELLEY. Where is that?

Mr. JOINER. That is in the Budget.

Mr. BYRNES. You had a total of \$65,000 and \$67,000. How about the \$67,000 put in reserve; how do you arrive at that figure?

Admiral STITT. They just asked what we could safely put in the reserve.

Mr. BYRNES. What became of the \$67,000?

Admiral STITT. It will go back into the Treasury.

Mr. BYRNES. Will it go back?

Admiral STITT. We have felt that that amount was returned to the Treasury.

Mr. BYRNES. I hope you are right. There will be \$65,000 still expended on July 1?

Admiral STITT. Yes, sir.

Mr. KELLEY. Do you need this \$65,000 next year for that purpose?

Admiral STITT. We can never tell. There may be an epidemic in Constantinople and a lot of deaths there.

Mr. KELLEY. What was the usual amount appropriated for this purpose prior to the war?

Doctor GIBSON. Before the war, \$32,658.

Mr. KELLEY. Probably transportation is a little higher?

Admiral STITT. It is. When we send the body of a man who dies in one of our hospitals 500 or 1,000 miles or even across the continent, we pay all the expenses.

Mr. BYRNES. Your expenditures are higher now?

Admiral STITT. Yes, sir.

Mr. BYRNES. You want \$65,000 to be reappropriated?

Admiral STITT. Yes, sir.

Mr. BYRNES. And let the rest go back into the Treasury?

Admiral STITT. Yes, sir.

CARE OF HOSPITAL PATIENTS.

Mr. KELLEY. The next item is, "Care of hospital patients." You have \$100,000 for this year and how much are you asking for next year?

Admiral STITT. \$85,000.

Mr. KELLEY. That is for hospitals other than naval hospitals?

Admiral STITT. Yes, sir. We are paying the Army for the care of our naval tubercular cases in their hospital at Fitzsimmons, near Denver, varying amounts, about \$3.10 a day.

Mr. KELLEY. What is the monthly expenditure for this running now?

Admiral STITT. It is not very high just now because we only have about 35 patients there at the present time, but any one entering the Navy after the 9th of February does not come under the War Risk Compensation Act, so that we will have to take care of those people; we can not turn them over to the Veterans' Bureau for \$80 disability, hospital care—they do not come under that—so the Navy will have to bear the cost of treatment of those people entering the service after February 9. Pensions would be open to them, but the

pension has been rather small and has not been sufficient to support a man with tuberculosis. Of course, the War Risk compensation at present is \$80 a month for total disability plus hospitalization. We feel that he is better off under the Veterans' Bureau. When we can no longer turn them over to the Veterans' Bureau we feel that we must keep those men for a reasonable time and give them every opportunity to get in good condition.

Mr. KELLEY. You do not intend next year to have any tuberculosis hospital of your own?

Admiral STITT. No, sir.

Mr. KELLEY. Those patients from the Navy not eligible for admission into the war risk hospitals must be carried in this item?

Admiral STITT. Yes, sir.

Mr. KELLEY. How many will there be?

Admiral STITT. That depends on the amount of recruiting after February 9, when the Sweet bill stopped the benefits. Those entering subsequent to that time we will have to look after. It depends on the amount of recruiting and the development of tuberculosis. Also if a man on detached duty or recruiting or anything of that sort is taken ill we put him into a civil hospital, provided there is no naval hospital near, and that hospital may charge \$5.50 or \$6.

Mr. KELLEY. Have you any idea how many there would be of that kind?

Admiral STITT. No; it would be impossible to estimate, because it is like an epidemic.

Mr. KELLEY. That is why we carry an item like this?

Dr. GIBSON. It runs up pretty high. There were 3,000 marine guards out with the mail. They were scattered all over the United States. Wherever injured or sick and hospitalized we paid for it out of this appropriation.

Mr. KELLEY. Did we have a fund for this purpose before the war?

Doctor GIBSON. No, sir; it originated in the war.

Mr. KELLEY. You think we will have to carry that item next year?

Admiral STITT. Yes, sir; particularly in the case of tuberculosis patients.

Mr. KELLEY. Because you have no tuberculosis hospital?

Admiral STITT. Yes, sir.

Mr. KELLEY. These are in hospitals other than those conducted by the Navy?

Admiral STITT. Yes, sir.

Mr. BYRNES. Have you any arrangement as to what they charge you?

Admiral STITT. The Army has a fine, large hospital at Denver which is larger than they need, and they say they can easily give us 200 beds in that hospital. We would have never given up our tuberculosis hospital had it not been that the Army said they had plenty of room for both services.

Mr. FRENCH. Generally speaking, where you have a given expense of this kind in connection with either the Army or the Veterans' Bureau hospitals—

Admiral STITT (interposing). So far it has only been in Army hospitals, that is, tuberculosis.

INCREASE IN SALARY OF CHIEF CLERK BUREAU OF MEDICINE AND SURGERY.

Mr. KELLEY. The next item is "Salaries, Navy Department," and you want to increase the salary of the chief clerk from \$2,250 to \$3,250. I may say, Admiral, the Appropriations Committee had an understanding that no salaries should be increased in any of these bills this year, so we might just as well pass that by. We do that as to all departments so as to make it uniform. There is a sort of readjustment of salaries going on.

Admiral STITT. This was a matter which was taken up in the council hearing, as I understand it, for the salaries of the chief clerks in the various bureaus of the Navy Department to increase their compensation about \$1,000.

Mr. KELLEY. I have not any doubt as to that.

Mr. BYRNES. If any salaries are increased your recommendation will be given careful consideration.

Colonel ROOSEVELT. It is justified, I know.

Mr. KELLEY. We want to treat all departments equally, and with the reclassification bill coming on we thought we would not interfere with these salaries pending that.

TEMPORARY EMPLOYEES.

Mr. KELLEY. The next item is for temporary employees. Your current appropriation for this purpose is \$40,000, and your estimate appears to be \$37,000.

Doctor GIBSON. The appropriation is \$40,000 this year and the estimate for next year is \$37,000.

Mr. KELLEY. If the Navy is reduced, will it not be possible to reduce this amount a little?

Admiral STITT. Mr. Chairman, we are handling the records of about 800,000 people of the war period in our bureau. We are doing the same work in the bureau of Medicine and Surgery that the Adjutant General's office is doing in connection with the men who served in the recent war, so that our main work, or three-fourths of the work of our bureau, is connected with claims, or the furnishing of medical records in connection with claims for compensation. We have been able to answer those calls for medical records solely by doing things that we had not the right to do, but we had to do it because we knew if we did not furnish those medical records upon which they based claims for compensation, it would mean a delay of two or three months. Therefore, we put in Hospital Corps men to help. We put in five Hospital Corps men, and we told the Veterans' Bureau that we could not furnish the records promptly, but they said, "You must give us those records that furnish the information right away." We have had six of their clerks, and, in addition to that, we have vocational training people there to assist in the work. We have really had about a dozen clerks more than we are supposed to have.

Mr. KELLEY. There was a temporary necessity for it, and the temporary necessity is still in existence?

Admiral STITT. Yes, sir.

Mr. KELLEY. Since it is necessary to supply these medical records to the Veterans' Bureau, I suppose you could not get along with fewer next year?

Admiral STITT. Absolutely not.

Mr. KELLEY. Is there anything else you wish to say to the committee?

Admiral STITT. I think it would be interesting to show you the amount we have spent for things that really are not exactly for the Navy, but there is no way to avoid it.

Mr. OLIVER. You have to do a certain amount of missionary work!

Admiral STITT. Yes, sir: missionary work. For instance, we spent last year \$96,826.31, or nearly \$100,000, for medical and surgical supplies in Haiti and San Domingo.

Mr. KELLEY. For the people there?

Admiral STITT. Yes, sir. We have talked the matter over with the Secretary, and he says that we should do everything we can.

Mr. KELLEY. That is to prevent the spread of disease?

Admiral STITT. Yes, sir. They are absolutely indigent. They have not a cent of money, and it is humanitarian work. That applies particularly to the outposts that are well away in the back part of the country.

Mr. BYRNES. Out of what fund do you get that money?

Admiral STITT. It is paid out of the Medical Department appropriation.

Mr. KELLEY. I suppose you do that upon the theory that you are preventing the spread of disease among our own people?

Secretary DENBY. Yes; we have the responsibility, and we must protect them. We must prevent the spread of contagious disease.

Mr. KELLEY. We are very much obliged to you, Admiral, for your statement.

TUESDAY, MARCH 14, 1922.

NAVAL ACADEMY.

STATEMENTS OF REAR ADMIRAL HENRY B. WILSON, SUPERINTENDENT, UNITED STATES NAVAL ACADEMY; COMMANDER I. C. KIDD, AID; AND COMMANDER T. DeF. HARRIS, SUPPLY CORPS.

Mr. KELLEY. We have with us this afternoon the Superintendent of the Naval Academy, Admiral Wilson, and his assistants. Admiral, we will be glad to have you make any general statement that you would like to make about the academy before we take up the needs of the academy in detail.

Admiral WILSON. Mr. Chairman, I assumed duty as Superintendent of the Naval Academy on July 5, 1921, and, therefore, had not much to do with making up the estimates for the coming year; but since that time I have given careful attention to the needs of the Naval Academy, have gone over the estimates, and have gone over the amount as proposed in the Budget, and, in speaking of the needs of the Naval Academy, I am prepared to state the amounts under the several heads which I think are necessary, having in view the upkeep of the Naval Academy and the need for strict economy.

FOR GRADUAL REDUCTION IN NUMBER OF STUDENTS ENTERING.

Mr. KELLEY. In considering the situation at the academy, I imagine you have assumed that there will be no change in the number of midshipmen who will enter this coming year?

Admiral WILSON. Yes, sir. I have considered that the number entering this year would be in accordance with the present law, as all the appointments have probably been made by now; but I have also had in mind what might come in the future, that is, a possible reduction.

Mr. KELLEY. But that will not affect the appropriations for this year?

Admiral WILSON. It affects them to the extent that I would rather have a gradual reduction by reducing some this year then to have it as sharp reduction, which would mean the same thing, next year.

MAKING ENTRANCE REQUIREMENTS MORE STRINGENT TO REDUCE CLASSES.

Mr. KELLEY. Your idea might be to make your entrance requirements for new classes a little heavier this year?

Admiral WILSON. We are not able to make the entrance requirements—

Mr. KELLEY (interposing). I mean the physical tests.

Admiral WILSON. We are not able to make the scholastic requirements firmer this year on account of the papers having gone out, but it is the intention of the academic board to be a little more strict in its recommendations as to who shall come in. For instance, in the past they have admitted young men to the Naval Academy with slight deficiencies in one subject provided they have been extra good in other subjects. In passing upon those for the February examinations the other day, the academic board, looking to the future and to the reduction that will probably come soon, and wishing this reduction to be gradual, was very strict in passing candidates.

Mr. KELLEY. So that, as a result of observing a little greater strictness in the entrance tests, you expect to reduce the fourth class somewhat?

Admiral WILSON. Yes, sir, the coming fourth class.

Mr. KELLEY. But probably not enough to make a great deal of difference in the expenses of the Academy for the year?

Admiral WILSON. Not sufficient to make a marked difference, for the reason that the academy is now running over the number that it has as regular accommodations for. For instance, Bancroft Hall will provide for 2,042 midshipmen living two in a room, that being the number for which the hall was designed, but lately we have, by putting three in a room and in the larger rooms four, carried the number to 2,450. For the maintenance and upkeep of the place, there will be required the same amount for Bancroft Hall, and even if the number is reduced to the regular number of 2,042, there could not be much less expense for maintenance, repair, and upkeep.

Mr. KELLEY. That is, you will just reduce the number to the normal accommodations?

Admiral WILSON. Yes, sir. The part where the reductions would be made in the Naval Academy, due to a smaller number of midshipmen, would be in the pay and rations, which is not a part of the Naval Academy estimates. I also think that we can gradually reduce some of the teaching staff.

Mr. KELLEY. You have made no changes in the salaries in the estimates?

Admiral WILSON. As I remember the estimates, there is only one, and that is in the case of the organist and choirmaster. Then, I have two other cases that I might mention at this time, and ask you to give your consideration to them when you come to them. They involve small amounts.

Mr. KELLEY. So that the amount asked for for pay of professors is on the same basis as last year, practically?

Admiral WILSON. Yes, sir; the estimate is the same, but since you have brought this question up, I will state that I believe the estimates could be radically reduced.

Mr. KELLEY. We will take that up when we reach it under the item of pay of professors.

Admiral WILSON. Yes, sir, then or now.

Mr. KELLEY. Are there any other items you have in mind that call for increases?

SALARY INCREASES FOR PHYSICAL INSTRUCTORS.

Admiral WILSON. Yes, sir. Since I have been in the Naval Academy there is one thing that has made a great impression upon me—so much so, that I probably would like to dwell on it for some minutes. That is the case of the instructors in physical training. At the present time, the estimate for instructors in physical training is \$26,700, with each man's pay itemized. These instructors in physical training do much for the Naval Academy—much more than I had any idea of before I came there. They are leaders and develop the midshipmen in a way that is most satisfactory. I would like to have the instructors in physical training grouped under the head of "Pay of instructors in physical training," with an increase of \$9,800 in the amount, making the total \$36,500, and with permission for me to reorganize the department. I am quite sure that the Government gets back from these men many times their cost carried in here, through their developing the youth of the Naval Academy. While on this subject, I would like to say that the supervision of all the physical training at the Naval Academy is not paid for by the Government. Our coaches in baseball, basketball, football, and some other sports are paid for by the Naval Athletic Association, and it amounts to quite a sum. The men I refer to are the men who are there every day of the year. They not only put the midshipmen through the regular schedule of exercises, but they take charge of them in the voluntary exercises, and of the 2,300 midshipmen at the Naval Academy at the present time there are over 1,800 getting this instruction through some form of special sports, to which these men give, not only the scheduled hours to the scheduled exercises, but they give outside hours to them. This suggested increase of \$9,800, I am sure, would enable me to increase the value of that service very much.

Mr. KELLEY. How many extra men would that employ?

Admiral WILSON. It is not so much a matter of extra men as it is a rearrangement. It involves the same number of men, but I hope to have one civilian whom I would call the associate director. He will be an associate to the officer we have in charge. Then we would have 2 assistants and 11 others, their pay being \$3,900, \$3,100, and \$2,400.

Mr. KELLEY. Let us see what your present organization is for instructors in physical training. What was it in 1921?

Admiral WILSON. One sword master at \$1,900, one assistant at \$1,700, one assistant at \$1,500, a head master in physical training at \$2,200, instructors in physical training—one at \$2,100, two at \$2,000, and seven at \$1,900.

Mr. KELLEY. Now, what is it that you want to do?

Admiral WILSON. I want to have 1 associate director at \$3,900, 2 assistants at \$3,100, and 11 assistants at \$2,400, which would mean an increase of \$9,800. In order to balance that, I have several reductions that would many times over compensate for that increase for physical training.

Mr. KELLEY. The amount of this paragraph last year was \$161,600. How much are you asking for this year?

Admiral WILSON. Taking the item of pay of professors, Naval Academy, when I go through the estimates I will recommend \$761,258.34 for the total under the heading "Pay, Naval Academy."

Mr. KELLEY. The increase you propose on account of instructors in physical training is how much over the present pay?

Admiral WILSON. \$9,800.

Mr. KELLEY. You want to strike out the word "men" and insert the word "man"?

Admiral WILSON. Yes, sir. I do not know what brought that up, but I presume that change was suggested by the former superintendent.

Mr. KELLEY. I take it that would not be important.

Admiral WILSON. No, sir.

INCREASE OF SALARY FOR CHOIRMASTER AND ORGANIST.

Mr. KELLEY. You want to increase the salaries of the choirmaster and organist at chapel from \$1,700 to \$2,400?

Admiral WILSON. Yes, sir; the increase for the choirmaster and organist at chapel is because we require an efficient man and one whose services may be utilized in teaching the midshipmen music and mass singing, so that they may take it with them to the fleet, or wherever their services may be utilized, for the benefit of the enlisted men. The present salary of \$1,700 is not sufficient to get a man suitable for this work, and therefore an increase to \$2,400 is asked.

INCREASE OF ESTIMATES 1923.

Mr. KELLEY. What is the sum total of your request for this paragraph?

Admiral WILSON. Mr. Kelley, the first paragraph, which is the largest one of all, has not been considered.

Mr. KELLEY. Last year you had \$161,600 for these items in the second paragraph. How much of an increase are you asking this year, including the physical instruction you have asked for?

Admiral WILSON. \$172,100.

Mr. KELLEY. That is an increase of \$10,500 under the second paragraph?

Admiral WILSON. Yes, sir.

Mr. KELLEY. We will go back to the first paragraph which I overlooked, pay of professors and others. Last year you had \$385,000, and how much are you asking for next year?

Admiral WILSON. \$392,850. That estimate was prepared before I came to the Naval Academy.

Mr. KELLEY. That is an increase of \$7,850?

Admiral WILSON. Yes, sir.

Mr. KELLEY. Are you changing the request?

REDUCTION OF INSTRUCTORS.

Admiral WILSON. You asked me a short while ago about the ability to change this appropriation, and I feel it could be cut to a very large extent without interfering with the interests of the Naval Academy. I would not advocate all officer instructors at the Naval Academy any more than I would advocate all civilian instructors. We need some of both to balance the work, but the proportion at the present time, about equal in number, does not, in my opinion, combine efficiency and economy. For this reason, and also because of the probable reduction in the number of appointments to the Naval Academy, I suggest, in accordance with your question to me, that the sum for "Pay of professors and others, Naval Academy," etc., be reduced at least one-half of the estimate. This would be a step toward bringing the proportion of officer instructors to civilian instructors back to what obtained before the war, and I believe such a step would not be hurtful to Naval Academy interests.

USE OF NAVAL INSTRUCTORS IN PLACE OF CIVILIAN.

There is much to be said in favor of using naval officers as instructors at the Naval Academy. In many ways the Navy is an excellent normal school. The routine duties required of naval officers involve a good deal of teaching. Success in the naval profession depends in a considerable degree upon the development of capacity to teach. The advance of naval science, with its attendant processes of change and improvement, demands mental alertness both to grasp new ideas and to instruct subordinates in them. We have a shifting enlisted personnel and there are always recruits to be taught new duties and to be instructed in the operation of complicated machinery.

Officers themselves frequently do not appreciate the extent to which their naval experience fits them to become instructors at the Naval Academy. It has not been uncommon for a young lieutenant, on his first tour of shore duty at Annapolis, to be assigned to teach a subject from a new textbook quite different from any he had studied when a midshipman. An officer so placed alongside professors who have devoted years to specializing in the subject is at first inclined to depreciate his ability to teach. He is indeed con-

fronted with obstacles, but, in accordance with his naval training, he bends his energy to overcome them. Then he usually discovers that the difficulties had been somewhat exaggerated in his own mind, and that he had not appreciated the extent to which experience afloat had fitted him to become an instructor of midshipmen.

An important advantage that a naval officer has over a civilian in teaching is that, by virtue of rank and experience, he is in a more favorable position to present incentives for midshipmen to learn well the subject matter set before them. Even in nontechnical subjects the value of an essential point can often be illustrated by some apt allusion to service life. Whether the subject is physics, history, or naval science, midshipmen feel that illustrations and explanations of officers are backed by experience with ships and men. As I see it, success in teaching hinges to a great extent on ability to inspire midshipmen with ambition to learn, and I believe that officer instructors have a knack for doing this.

The mission of the Naval Academy is not to produce intellectuals or scholars but intelligent naval officers, with healthy minds in healthy bodies. Moral, mental, and physical training go hand in hand. The intellectual side is not neglected, but character building is given particular stress. Discipline and drill are so interwoven with the academic work as to be part and parcel of it. Here again the experienced officer has the advantage over the civilian instructor. The officer knows the service, realizes that the midshipmen of to-day will be his brother officers of to-morrow, and therefore contributes to Naval Academy work an understanding, cooperative effort which can be paralleled by few civilian instructors.

The criticism has been made that "it is a pathetic sight afforded by the officer instructor who burns the midnight oil to keep one day ahead of the lesson which his class is to recite." The inference to be drawn from this is not quite fair. Granted that, for his first year at least, the officer instructor does have to study his lessons with diligence, does it necessarily follow that his teaching is of inferior quality? The textbook lessons assigned are plenty long enough and contain all that the average midshipman can be expected to absorb with thoroughness. I have heard it said that the officer who has to study along with his class is likely to concentrate on the lesson assigned and make full use of his experience and judgment to drive into the heads of the midshipmen the essential points in the lesson, whereas the professional teacher, being much more familiar with the subject, is likely to underestimate the difficulties with which the student has to contend and, instead of clearing them up, may easily be led to elaboration, introducing complexities which leave the student impressed with the superior knowledge of his teacher, but more confused than ever as to what the lesson is about. It is not unnatural that enthusiasm in a subject should sometimes lead a teacher to go over the heads of his pupils. I do not wish to undervalue the stimulation afforded by a learned exposition from a scholar, but I wish to make the point that this is not always an unmixed good, and that the less exhaustive knowledge of his officer instructor is not always an unmixed evil.

It has also been said that we are old-fashioned in our methods at the Naval Academy. In some respects this is frankly admitted. It does not mean, however, that our minds are closed to new ideas. We are constantly on the lookout for new ideas, and adopt them when

we are convinced that they are good. But we believe that the country is proud of the high standing the Naval Academy has attained as an educational institution, and we do not propose to kick down maturely the ladder by which the academy has mounted to its enviable position. For example, the method of teaching called "direct method" aims to supply knowledge in a sort of predigested form, which can be assimilated by the pupil without effort. We do not use this method to any great extent at the Naval Academy. We believe in the old-fashioned way—"We learn by doing"—and our embryo officers will continue to fit themselves for future tasks by doing a lot of "hard digging" during their four years at Annapolis. We try to give the incentive, point the way, and help them over the hard spots, but conscientious work on their part is required to reach the goal.

NUMBER OF INSTRUCTORS—CIVILIAN AND NAVAL.

Mr. KELLEY. How many professors and instructors have you altogether at the academy?

Admiral WILSON. We have 118 civilian instructors and about the same number of officer instructors.

Mr. KELLEY. What do you think should be the right proportion?

Admiral WILSON. Before the war we had about three officer instructors to one civilian instructor. I think that if this appropriation were cut to about \$150,000 or \$140,000 from the amount it is today we at the Naval Academy could have the best of what we have now and have ample civilian instructors to keep the balance; that the Naval Academy would not suffer in the least, and that the total number of officer instructors and civilian instructors would be reduced.

Mr. KELLEY. That would mean you would have to let about half the civilian instructors go at the end of the year?

Admiral WILSON. No, sir; I think we would have to let about a third go.

Mr. KELLEY. I was just thinking of the possible moral obligation involved in letting so many go at once.

ADVISABILITY OF REDUCING NUMBER OF CIVILIAN INSTRUCTORS.

Admiral WILSON. The civilian instructors came into the Naval Academy during the war when officers were doing other work and could not be obtained, and I think, as we are after economy combined with efficiency, that we could save a quarter of a million dollars right there. I do not think it would hurt the efficiency.

Mr. KELLEY. And you do not think it would be an injustice at all? You think there is plenty of time left so that these people could find positions elsewhere? I was just thinking whether or not there would be ample notice of the change in policy.

Admiral WILSON. Of course, my personal feelings would be entirely against letting the professors and instructors at the Naval Academy. I would not like to see any of them lose their jobs, because they are all good men.

I was speaking strictly as the superintendent of the Naval Academy, in coming before you, who are appropriating money for the academy. It is my thought that at a quarter of the present number of officers in the academy.

of officers in p

Admiral WILSON. Yes, sir. It is very probable that we would require less officers to take the places of the professors who go out.

Mr. FRENCH. That would be caused by the diminution in enrollment?

Admiral WILSON. No, sir; it would be because the officers at the Naval Academy can be utilized to more advantage than the professors; they can teach more than one subject if necessary, and they can be utilized in the drills.

Mr. FRENCH. What period of contract have the professors there now? Are they employed from year to year?

Admiral WILSON. Some time ago they were given appointments that stated that they were appointed for a certain length of time, but I understand that is governed entirely by the appropriation of Congress.

Mr. BYRNES. You think you would have no trouble in getting officers who would make good instructors?

Admiral WILSON. No, sir. Just now, when we are thinking about keeping our officer personnel until we know there is going to be no more trouble, it would be a very profitable way to use their services.

Mr. BYRNES. I think so, too, if you have no doubt about securing competent men; but a good officer may not be a good instructor.

Admiral WILSON. Mr. Byrnes, we have very little choice about who shall come to the Naval Academy as instructors. If he is an officer in the Navy and his services are available, he is sent to us, and I have not first pick of the men in the Navy who come to the Naval Academy as instructors.

Mr. BYRNES. Who does select them?

Admiral WILSON. When the Bureau of Navigation finds officers becoming available on account of detachment from sea duty, they send their names to me. I pass on them, and I pick any one, unless he has something in his makeup which I know personally would not fit him to be associated with the midshipmen.

Mr. BYRNES. You will no doubt agree that it is not every man who has received an education that possesses the gift of imparting knowledge to others.

Admiral WILSON. Yes, sir; at the Naval Academy we have to agree that to a large extent—that any man who is a commissioned officer and who has gone through the Naval Academy is good material to bring back to teach the midshipmen. Although he may not be the best teacher compared with some civilian instructor, in the end he delivers as much education to the midshipmen as one who is just trained in scholastic work, because there are more things than teaching him his lesson that the officer has to teach a midshipman.

Mr. KELLEY. It has been my understanding that these civilian instructors were employed through an oral contract, or some sort of understanding, that they should remain five years if they were satisfactory.

Admiral WILSON. Well, sir, I do not look upon that as a contract in any way. I look upon it like this, that you say to him if he behaves himself and delivers the proper efficiency there will be no reason to disturb him for a certain length of time. Of course, I realize that their tenure of office is in accordance with the appropriations by Congress.

Mr. FRENCH. What would be the decrease on the basis of the number of midshipmen you will probably have next year?

Admiral WILSON. I do not think there will be any marked decrease in the number of midshipmen, because probably the same number will come in; but I think there will be a moderate decrease due to the fact that we must be less kind-hearted in carrying those who are not entirely efficient. In the past we have been asked by numerous persons to give this man another show and give that man another show, but now that it is the wish of Congress to cut us down at the Naval Academy, I do not think we will have as many requests at that line.

Mr. KELLEY. About how many of these civilian professors would probably leave, anyhow?

Admiral WILSON. I doubt if any would leave, sir.

Mr. KELLEY. It is your opinion, Admiral, that the academy would not suffer at all if the percentage of officer instructors increased, and the only element that enters into that at all would be whether or not a little more notice might not properly be given to the civilian instructors to get out of the positions?

Admiral WILSON. Yes, sir.

Mr. KELLEY. Mr. Secretary, I should like to have your opinion to the recommendation of Admiral Wilson to reduce the number of civilian instructors by from 33½ per cent to 50 per cent, and to replace them with officers at the academy for the coming year?

Secretary DENBY. I would approve that suggestion, Mr. Chairman.

Mr. FRENCH. In the event of the reduction of the number of cadets in the academy, what ratio would the reduction of the members of the faculty bear to the reduction of the students, that is, would they bear the same ratio or some other ratio?

Secretary DENBY. I understood there would not be any reduction.

Mr. FRENCH. I do not know. I am simply asking that question, putting it in a hypothetical way, so in the event there should be a reduction.

Admiral WILSON. Yes, sir; it would be about the same, except that it would be gradual, due to the fact that the entering classes are on one line of subjects to learn and that the older classes have more technical subjects which require officers entirely to teach.

Mr. FRENCH. And probably in the more advanced lines one of every two or three teachers would not have as many pupils?

Admiral WILSON. No, sir. I think the number of pupils to each instructor would be about the same. It averages anywhere from 10 to 14, according to the number of instructors.

POSSIBLE RESIGNATIONS OF STUDENTS.

Mr. BYRNES. Is there any disposition on the part of the boys of the upper classes to resign from the academy because of the fact that they will not be commissioned?

Admiral WILSON. No, sir; I think every one of the first class is going to stay at least to get his diploma.

Mr. BYRNES. How about the next class?

Admiral WILSON. I think the other ones hope that when the time comes for them to graduate, they will be able to do so. I have heard it suggested that there may be a view of the academy, but I am not sure.

that the senior class was devoted to navigation to a greater extent than the other classes, that his chance of securing a commission was not good, and that it would be advisable to resign.

Admiral WILSON. I think any young man who has entered the academy and leaves it because he is not going to get a commission makes a great error. What he learns at the academy is good wherever he goes, and he gets a wonderful physical training outside of anything that he may retain from the books.

AMOUNT SAVED BY REDUCING NUMBER OF CIVILIAN INSTRUCTORS.

Mr. KELLEY. Do you know, Admiral, how many of the civilian professors at the academy are married men?

Admiral WILSON. I think the majority of them.

Mr. KELLEY. You do not know offhand, I suppose, whether they own homes in Annapolis?

Admiral WILSON. I think most of those to be retained would be those who have families and homes. That is, those who at the academy contribute to the academy other than their teaching. We have instructors who help in athletics, who help in the entertainments, who help in our Naval Academy work. They give themselves to other work besides their regular required routine work, and naturally those men would be the ones that the academy would want to keep, and also the academy would give attention to the length of service.

Mr. KELLEY. You could administer this in such a way that those who have homes there, if they were to be let go, would have a little longer time to get ready for the change?

Admiral WILSON. Yes, sir. It is the desire of mine not to hurt anybody.

Mr. KELLEY. If you carry out this policy you can reduce the amount from \$385,000 to what?

Admiral WILSON. \$150,000, I said.

Mr. KELLEY. Instead of \$385,000?

Admiral WILSON. Yes, sir.

DEPARTMENT OF ORDNANCE AND GUNNERY.

Mr. KELLEY. The next item is "Department of Ordnance and Gunnery"; do you recommend any change there, Admiral?

Admiral WILSON. Yes, sir; I recommend a reduction there. The total for the last year was \$20,658. This year we propose \$19,300.56, by a rearrangement of the estimate, going through it and working it out.

Mr. KELLEY. That is just a small sum, due to readjustment?

Admiral WILSON. We are saving a little on the readjustment of the details and also the 5-day week.

Mr. KELLEY. By a rearrangement?

Admiral WILSON. By a reduction to the 5-day week, and a readjustment of the pay schedule, etc. That is a reduction of \$1,357.44.

DEPARTMENTS OF ELECTRICAL ENGINEERING AND PHYSICS.

Mr. KELLEY. The next item is "Departments of Electrical Engineering and Physics."

Admiral WILSON. The sum we have reduced is \$1,468.84, making the total we want \$17,962.20.

Mr. KELLEY. To what is that reduction due?

Admiral WILSON. To the same thing, the rearrangement of the wage schedule and the 5-day week.

Mr. KELLEY. What do you mean by the 5-day week?

Admiral WILSON. We are only working five days a week now.

Mr. KELLEY. There is a reduction and you would think that that would make an increase?

Admiral WILSON. No; they only get five days' pay.

DEPARTMENT OF SEAMANSHIP.

Mr. KELLEY. The next item is "Department of Seamanship."

Admiral WILSON. There is nothing I can recommend there. I would like to have that sum, \$8,188.08, as it is.

Mr. KELLEY. What craft do you require down there for this work?

Admiral WILSON. We have reduced our craft and enlisted men absolutely to a minimum. I received a letter from the Chief of the Bureau of Navigation the other day commending us for our reduction of the enlisted personnel. We have a receiving ship; we have eight motor boats, subchasers, which take the midshipmen out and teach them ship handling. We have a tug and then we have, probably, 24 rowboats, cutters, that the midshipmen go out in; we have about 20 small sail boats that the midshipmen go out in, and we have two or three steam launches. We have cut everything that utilizes men and fuel down to bedrock.

Mr. KELLEY. You ought to try to get rid of the subchasers.

Admiral WILSON. Before the subchasers came we had steam launches. The steam launches were not fast enough to teach the first-class ship handling and going through the tactical formations that we teach them from the books. I know they are expensive.

Mr. KELLEY. You have some enlisted personnel?

Admiral WILSON. One chief petty officer in charge of the boats and about three enlisted men. The boats are manned by the midshipmen when they go out. The only thing that costs is for the gas and I recognize that is quite an item. I do not know of any other method by which you could teach the midshipmen the practical part of the work. We teach the theoretical part in the classrooms. They are out every day when the weather is good, commencing now.

ENLISTED PERSONNEL.

Mr. KELLEY. You run them practically with your enlisted personnel?

Admiral WILSON. All they do is a little upkeep. They are run by the midshipmen themselves. We have a certain number of carpenter-mat and machinists who look out for the motor boats, the sail boats, and a little boats, but we have the number down to an absolute minimum.

As I say, we have been to

we met all:

the sail boats
to an absolute
the Chief of the
boats.

The CHAIRMAN. Could you not teach the midshipmen to do the mechanical work without interfering with their scholastic course?

Admiral WILSON. The mechanical work is all done during the drill period. They do not go out during the scholastic periods. That is part of the drill of the first class, the class that is going into the navy to become officers. They take the wheel, take the deck—we have an officer on board each boat—make the signals, etc.

The CHAIRMAN. But they do not overhaul the machinery.

Admiral WILSON. Yes, sir; that is a part of the drill. Every day certain number of midshipmen are down in the machine shop being taught to overhaul the machinery, to make machinery, in the forge and in the blacksmith shops.

Secretary DENBY. I think the chairman meant could not the midshipmen attend to the boats instead of the carpenter-mates and machinists?

Admiral WILSON. No. I do not think they could do the carpenter work and the mechanical work. The number of enlisted men we have is very few. I do not think we have at the Naval Academy over 10 men outside of the mess attendants who attend to the midshipmen's mess hall. We have, I think, 290 Filipino mess attendants. Although that is looked upon as quite a number, I think they contribute much to the efficiency and economy of the Government. If we did not have them paid from the Navy we would have to pay them from the Naval Academy and pay them more and get less efficient people and not be able to control their physical condition. As it is now, they are under military discipline and they are kept clean. If a man is physically unfit in the way of any disease he is eliminated at once, and I think the total expenditure for mess attendants to attend the midshipmen in the mess hall is much less than it could be if the Government appropriated the money and hired them from civil life.

DEPARTMENT OF MARINE ENGINEERING AND NAVAL CONSTRUCTION.

Mr. KELLEY. The next item is "Department of Marine Engineering and Naval Construction."

Admiral WILSON. We can reduce that item \$6,160.20, making what we want, \$49,754.12.

Mr. KELLEY. How does that reduction come about?

Admiral WILSON. In the same way, the rearrangement of pay, the 5-day week. I would like to say that our records have been kept very carefully and this is from practical knowledge.

COMMISSARY DEPARTMENT.

Mr. KELLEY. The next item is "Commissary Department."

Admiral WILSON. We have by means of cutting down employees and rearranging things been able to make a saving on the estimate \$35,201.01, making what we ask for, \$203,214.08 instead of what we had last year, \$238,415.09.

ENLISTED MEN AS MESS ATTENDANTS.

Mr. BYRNES. How did you make that estimate of \$406,227.9?

Admiral WILSON. That was based on civilian mess attendants. The estimate shows an amount of \$406,000. That is because estimated, by direction of the department, for civilian mess attendants in the messhall. As I have said, I think that it is economical although paid out of pay of the Navy, instead of being paid out of the Naval Academy, the total transaction is much more economical and much more efficient and much more for the benefit of the shipmen to let it go as it is.

Mr. KELLEY. This would include about how many enlisted men? Admiral WILSON. Two hundred and eighty-eight.

Commander HARRIS. The appropriation has been made for civilian labor, but never used; for the last two years it has not been used because we have been using the enlisted men as mess attendants.

Mr. KELLEY. Is not this the item about which we had some controversy last year with West Point?

Commander HARRIS. No, sir; that was the ration money.

Mr. KELLEY. I recollect somebody saying that at West Point the boys paid something toward the help?

Commander HARRIS. Yes, sir.

Mr. KELLEY. At Annapolis you have been paying that?

Commander HARRIS. Yes, sir.

Mr. KELLEY. We made the reduction last year in order to equalize the difference between West Point and Annapolis and if you put in these enlisted men that restores that difference?

Commander HARRIS. No, sir. Last year you did not make an appropriation.

Mr. KELLEY. No.

Commander HARRIS. It has always been in the estimate.

Mr. KELLEY. I know. The year before last there was an appropriation made of \$397,000?

Commander HARRIS. Yes, sir.

Mr. KELLEY. And this last year we reduced it to \$238,000 because the boys had to pay it themselves to equalize the difference between West Point and Annapolis?

Commander HARRIS. Yes, sir.

Mr. KELLEY. If we put in the 288 enlisted men, as Admiral Wilson wants to do, then that will restore the difference?

Commander HARRIS. We had the enlisted men last year.

Mr. KELLEY. Was it not the intention that the boys should pay these waiters?

Commander HARRIS. No, sir; never.

Mr. KELLEY. What was it?

Commander HARRIS. They had kept a certain number of help there, something like, I believe, 50 or so.

Mr. KELLEY. I remember the commandant of the Military Academy, when he was down here, made a list of the advantages that the boys at Annapolis had over the boys at West Point, and this was

Commander HARRIS. That was one. We explained that we had other disadvantages.

Mr. BYRNES. And that one offset the other.

Mr. KELLEY. The point is that the West Point boys pay for such number of mess attendants as are used up there, while you use enlisted men. That is the fact, is it not?

Commander HARRIS. To a certain extent they have, sir; but, in addition, they have to hire a certain number of waiters, I believe. It was under the ration allowance item that that question came up.

Mr. KELLEY. No; there was a question of mess attendants, or the question of paying for waiters.

Commander HARRIS. As Mr. Byrnes has said, it was a question of West Point having some advantage and of our having some advantages, and, as a result of the hearing, I think you figured that one about counteracted the other.

Mr. KELLEY. We made a reduction from \$397,000 to \$238,000 for some reason.

Commander HARRIS. I think you realized that we had these enlisted men as mess attendants, and for that reason we did not use the money, but turned it back. As long as we had not previously used the money, last year you did not appropriate it. The year before we had enlisted men for mess attendants and did not use that money, but we turned in a surplus.

Mr. KELLEY. The year before you had \$250,000 and had enlisted men. Last year, or in 1921, you had \$395,000 and had civilian help. Does this rearrangement require any change in the language?

Admiral WILSON. No, sir.

The CHAIRMAN. I have been in the House to find out what the Army bill carries in this connection for the students at the Military Academy. The bill provides that the students shall pay for all the mess attendants out of their ration allowance. For the current fiscal year the ration allowance is \$1.08 per man, but in the present bill that allowance has been reduced to 75 cents per man upon the recommendation of the War Department, and the students are to pay for the mess attendants out of that 75 cents per day per man.

Admiral WILSON. I do not see how they can do it.

The CHAIRMAN. That was the recommendation of the War Department, and the committee accepted their recommendation. In addition to that they say that your people down at the Naval Academy have a milk allowance.

Mr. KELLEY. But the milk costs the Naval Academy boys twice as much as the West Point people pay for their milk.

The CHAIRMAN. Anyway, out of the 75 cents ration allowance, they are to pay for all the mess attendants.

Mr. KELLEY. Now, this amount of \$203,214 represents the expense of the commissary department, exclusive of 288 enlisted men who serve as waiters.

Admiral WILSON. Yes.

Mr. KELLEY. The question for us to consider is whether these men should be paid for by the boys or by the Navy Department. You have this proviso:

Provided, That no employee paid under the provisions of this paragraph shall receive a salary in excess of \$2,400.

Admiral WILSON. I think that must have been put in at some time to catch up some individual.

Mr. KELLEY. You do not care for that?

Admiral WILSON. I should like to see the whole provision stricken out, because you put it up to the Superintendent of the Naval Academy to run the institution, and a superintendent who has decreased the amount of the estimates \$350,000 is not going to pay anybody extravagant salary. This is evidently for some one individual, if somebody wanted to give him more money, but I will not give him any more than everybody else doing the same kind of work receives.

Mr. KELLEY. You are not especially interested in that change of language?

Admiral WILSON. I think you had better let it go by and I will look into it further at some other time.

BUILDINGS AND GROUNDS.

Mr. KELLEY. The next item is for the Department of Buildings and Grounds. What are your recommendations there?

Admiral WILSON. There is no change in that item.

Mr. KELLEY. This item provides for one messenger to the superintendent, at \$1,001.60, and necessary building attendants. You have the same number of attendants that you had last year?

Admiral WILSON. Yes, sir.

Mr. KELLEY. How many is that?

Commander KIDD. One hundred and fifty-four.

Mr. KELLEY. And you pay the same wages?

Commander KIDD. The Navy Department changed the wage schedule in September and reduced the pay, but when they reduced the pay they also provided that after six months employees should receive the maximum rate of pay. Before that order we were giving the maximum rate of pay and thus kept within the appropriation. This maximum rate of pay feature makes it necessary to have the same amount as this year for building attendants.

Mr. KELLEY. How much is that in all for the civil establishment?

Admiral WILSON. The sum total of that would be \$761,958.34, I think.

Mr. KELLEY. All right; we will verify that.

CURRENT MISCELLANEOUS EXPENSES.

Mr. KELLEY. For current and miscellaneous expenses, you have \$110,000 for the current fiscal year, and you are asking the same amount for the next fiscal year?

Admiral WILSON. Yes, sir; the same amount.

Mr. KELLEY. You had that amount of \$110,000 in 1920, in 1921, and in 1922, and you had \$89,000 in 1919. Of course, the increased amount was due to the increased attendants.

Admiral WILSON. As they come down, we will reduce that.

Mr. KELLEY. Have you a detailed statement showing what items amount to?

Commander KIDD. Yes, sir.

Mr. KELLEY. You may put that in the record.

Mr. KELLEY. I will do so.

Current and miscellaneous expenses for fiscal year 1921.

Text and reference books for use of instructors.....	\$2,377.37
Stationery, blank books and forms, models, maps, and periodicals.....	17,113.68
Apparatus and materials for instruction in physical training and athletics.	19,211.18
Expenses of lectures and entertainments, not exceeding \$1,000, including pay and expenses of lecturer.....	0.00
Chemical philosophical apparatus and instruments, stores, machinery, tools, fittings, apparatus and materials for instruction purposes.....	69,351.33
Total appropriation.....	110,000.00
Total expenditures.....	108,053.56
Balance.....	1,946.44

Mr. KELLEY. There must be some reduction in the cost of material like stationery, blank books, forms, maps, apparatus for physical training and athletics, etc.

Commander KIDD. This item is based upon the expenditures of last year, or this estimate was based upon those expenditures, and we spent practically the entire amount last year. I have an itemized statement here.

Admiral WILSON. If we do not spend it, we will turn it back into the Treasury. We can estimate the other items more accurately because they consist mostly of help.

Mr. KELLEY. In a case where the item is for purchasing material you must take into account the natural fall of prices, which has been quite considerable. How much the fall has been on this class of goods I do not know, but paper must be considerably cheaper.

Commander KIDD. The actual expenditures last year were \$108,052.56, and there was turned back the sum of \$1,046.44.

STATIONERY.

Mr. KELLEY. What part of this is stationery?

Commander KIDD. Stationery, blank books, forms, maps, periodicals, etc., amounted to \$17,113.68; reference books for the use of instructors amounted to \$2,377.37; apparatus and material for instruction in physical training and athletics amounted to \$19,211.18.

CHEMICALS AND PHILOSOPHICAL APPARATUS AND INSTRUMENTS.

The amount for the expense of lectures and entertainment we did not spend last year, but we will use it this present year; and the item of chemicals and philosophical apparatus and instruments, machinery, tools, fittings, apparatus, and material for instruction purposes, amounted to \$69,351.33.

Mr. KELLEY. That is the big item?

Commander KIDD. Yes, sir.

Mr. KELLEY. What about the price of chemicals and philosophical apparatus?

Commander KIDD. For the buying of this material, requisitions are submitted to the department, and it is then purchased through the department on regular orders, the lowest bidder furnishing the material.

Mr. KELLEY. You do not know from an examination of the bills how the prices are running?

Commander KIDD. No, sir; I do not know.

Mr. KELLEY. You do not know whether the prices on that material have been reduced, or not?

Commander KIDD. No, sir.

Mr. KELLEY. If we should find that there was a considerable reduction in the price of chemicals, we could reduce this item proportionately?

Commander KIDD. Yes, sir.

Admiral WILSON. You can make that item \$100,000. We will do our best on \$100,000.

PURCHASE, BINDING, AND REPAIR OF BOOKS.

Mr. KELLEY. For the purchase, binding, and repair of books for the library, your current appropriation is \$2,500, and you are asking the same amount for the next fiscal year?

Admiral WILSON. Yes, sir; and that is none too large.

EXPENSES OF BOARD OF VISITORS.

Mr. KELLEY. For the expenses of the Board of Visitors to the Naval Academy, you estimate \$3,000, which is the amount of the current appropriation. Do you spend that amount each year?

Admiral WILSON. Yes, sir.

CONTINGENCIES FOR SUPERINTENDENT.

Mr. KELLEY. For contingencies for the superintendent of the academy, you estimate \$3,000, which is the amount that has been appropriated for a long time.

Admiral WILSON. Yes, sir.

CONTINGENCIES FOR COMMANDANT OF MIDSHIPMEN.

Mr. KELLEY. For contingencies for the commandant of midshipmen, you estimate \$1,200, which is the amount of the current appropriation.

Admiral WILSON. We need that amount.

Mr. KELLEY. That makes in all for current expenses——

Admiral WILSON (interposing). There is a reduction of about \$10,000, making the amount \$109,700.

MAINTENANCE AND REPAIRS.

Mr. KELLEY. For maintenance and repairs, your estimate \$1,105,000, which is the amount of the current appropriation.

NOTE.—In connection with this appropriation, I wish to include in the record as part of my remarks, a letter written by me to the Chief of the Bureau of Navigation on October 28, 1921.

UNITED STATES NAVAL ACADEMY.

Annapolis, Md., October 28, 1921.

From: Superintendent.

To: Bureau of Navigation.

Subject: Budget estimates.

Reference: Bureau of Navigation's first indorsement, N-4 LD-G, dated October 1, 1921.

Inclosures: Three.

1. In reply to reference noted above, the following information regarding the Naval Academy is herewith submitted:

Budget of, to July 1, 1921.....	\$15,080,398.
.....	39,000.
.....	129,840.
.....	495,510.
.....	15,754,947.

2. Maintenance and repairs estimate for 1923 (exclusive of commutation of quarters bandsmen), is \$1,200,000, which is 7.6 per cent of the original cost of the structures.

3. Interesting data concerning the Naval Academy (116 major buildings and quarters not including such smaller structures as garages, etc.)

Bancroft Hall: There are 16,000 lineal feet of corridor, 886,306 square feet of floor space, and 1,806 rooms.

Docks: Santee Wharf, reinforced concrete structure on concrete piles, wood block floor, 36,316 square feet. Reina Mercedes Wharf, timber structure on wood piles, 3,300 square feet.

Sea wall: Masonry, 10,770 lineal feet; timber, 700 lineal feet.

Bridge—over Dorsey Creek: Reinforced concrete structure on concrete piles, 5,360 square feet of roadway. Steel plate girder draw span with wood deck, 2,640 square feet of roadway.

Roads: Paved, 9,470 lineal feet; unpaved, 29,080 lineal feet.

Walks: Paved, 43,650 lineal feet; unpaved, 3,000 lineal feet.

Railroad tracks, 4,350 lineal feet.

Outside piping: Salt water (fire and flushing), 25,500 feet; fresh-water supply, 1,000 feet; fresh-water suction, 3,000 feet; fresh-water air lines to artesian wells, 2,400 feet; hot-water lines, 6,015 feet. Steam lines: Lead lines, 17,200 feet; return lines, 3,777 feet; sewers, 28,600 feet; drains, 77,000 feet.

Interior piping of all kinds, 300,000 lineal feet (57 miles).

List of plumbing fixtures: Natatorium, 1; showers, 1,000; bathtubs, 158; lavatories, 62; sinks, 320; drinking fountains, 34; water-closets, 587; urinals, 297.

4. By inclosures will be found one blue print showing layout of outside steam lines, one blue print showing layout of fire mains, and a photograph showing condition of steam main at a section which failed during a recent fire drill.

5. The average life of extra heavy pipes for fresh water is only five years, due to rapid deterioration from iron oxide in the water, and while the deferrization plant to be installed during the present year will help future conditions, it will not remove the necessity of the usual replacements for 1923. The fresh water is supplied from artesian wells within the limits of the Naval Academy.

6. The fire mains, as will be noted from inclosed photograph, are in particularly poor condition, and 1923 must include extensive replacements.

HENRY B. WILSON.

DEFERRIZATION PLANT.

Admiral WILSON. We have this year been working on \$90,000 less than the amount actually spent last year. There have been times at the academy during this cold weather when we have not been able to heat the buildings, because we could not run beyond our allotted appropriation for the month. Without going through the whole thing in detail, I will say that that amount of \$1,105,000 is none too large. I say that from our experience this year. In addition to that—and I am coming now to an item that has caused an increase—our water at the Naval Academy is from artesian wells, and it is led with iron. That iron has been the cause of our using an extra quantity of water, because when anyone turns on a spigot and this yellow mud comes out, he will let the water run until it runs clear. We have in last year's appropriation an amount of money to put in a deferrization plant which is now under construction and will be ready for operation July 1, 1922. That deferrization plant will be well worth the money, because it will take the iron out of the water, and make a less expenditure necessary by keeping our pipes from corroding, as they have done in the past and are doing now. We estimate that it will cost \$20,000 to operate that deferrization plant, and we would like to have \$20,000 added to this amount, which is less than the amount of the reduction we have made in other places. This estimate is conservative and itemized as follows: Supervision, \$1,000; operators (4), \$7,000; material, \$5,000; power plant costs,

\$5,000; in all, \$20,000. I ask that because I really believe that is going to be an economical move on the part of the Naval Academy. That would make the sum we would like to have for maintenance \$1,125,000. Every expenditure under this item is scrutinized by me, with the assistance of Commander Kidd, and I do not let that a dollar gets away from us.

REPAIRS TO PUBLIC BUILDINGS, WHARVES, AND WALLS.

Mr. KELLEY. Have you the details of this item?

Commander KIDD. Yes, sir. For repairs to public buildings, wharves, and walls inclosing the grounds of the Naval Academy, improvements, repairs, and fixtures, the estimated expenditure is \$521,983.62.

Mr. KELLEY. That is the big item?

Commander KIDD. Yes, sir.

Mr. KELLEY. That is for repairs to the buildings?

Commander KIDD. Yes, sir.

PAINT, LUMBER, ETC.

Mr. KELLEY. Paint and materials of that sort are very cheap, or will be very much cheaper next year.

Commander KIDD. I do not believe you will find a very marked reduction in that throughout the country.

Admiral WILSON. We had a lot of paint on hand in the Navy which we are paying the old prices.

Mr. KELLEY. We authorized the Navy Department to reduce prices to current prices, so you will not have to pay any more than you would have to pay on the market. I think these items involve large purchases of commodities of that kind on the market, and should show a great reduction this year from last year.

Commander KIDD. For instance, in connection with these repairs when the wind and rain come driving down the Severn River, water comes under and around the window sills, and the sills and windows must be renewed in several buildings without delay during the coming summer.

Mr. BYRNES. Lumber has been reduced in price.

Commander KIDD. Lumber is lower; yes, sir. This work has been undertaken yet, but it is work that must be undertaken once.

Mr. KELLEY. The large items will be lumber, paint, nails, cement and sand.

Commander KIDD. Yes, sir.

Mr. BYRNES. Lumber is away down. There has been quite a decrease in the price of lumber?

Commander KIDD. Yes, sir.

Mr. KELLEY. You may put in the record a statement of expenses last year under this item by classes, and your estimate of expenses for the coming fiscal year arranged by classes.

Commander KIDD. I will do so.

FUEL.

Mr. BYRNES. Do you buy fuel under this item?

Admiral WILSON. Yes, sir; and during this winter we were up against it in the heating of the building.

Mr. BYRNES. How do you buy coal?

Commander KIDD. A contract is made every six months in the Navy Department. I think the last contract price was \$7.23 per ton.

Admiral WILSON. Last winter we had to turn the heat on for two hours in a building and then turn it off for two hours.

Mr. BYRNES. Is there a decrease in the price of coal?

Commander KIDD. There was an increase of about 40 cents per ton.

Mr. FRENCH. What kind of coal do you use?

Commander KIDD. It is bituminous coal, or steaming coal.

Mr. KELLEY. What was the price?

Commander KIDD. \$7.23 per ton under the present contract.

Mr. KELLEY. What is the date of that contract?

Commander KIDD. October 1, I believe.

Mr. KELLEY. The price depends upon where it is delivered?

Commander KIDD. Yes, sir; it must come down there by rail and barges. It is delivered at the Naval Academy.

Mr. KELLEY. What did you pay last year?

Commander KIDD. The average cost, I think, was \$6.828 delivered to the Academy.

Mr. KELLEY. For the same grade of coal?

Commander KIDD. Yes, sir. Another item that makes the Naval Academy more expensive than it would be in most localities is the iron in the water that affects the pipes to such an extent that the life of the pipes there averages only about five years, and we have 50 miles of interior piping.

Mr. FRENCH. You have installed this deferrization apparatus above the system entirely, so that all of your piping will be free from iron?

Commander KIDD. Yes, sir. Of course, the immediate effect of that saving will not be marked, but in the long run it will amount to a great deal. Our fire mains are affected in the same way, and they fill up with sediment, and one entire high-pressure loop protecting the ship and Roger Roads must be renewed.

Admiral WILSON. We have filters now, and they are quite expensive to keep up. There will be a saving through the elimination of the filters.

Mr. KELLEY. For general maintenance and repairs at the academy you spent \$521,000, and you are asking for how much?

Commander KIDD. We are making the estimate upon the basis of the expenditure of last year.

Mr. KELLEY. You are apportioning it in about the same way?

Commander KIDD. Yes, sir; in about the same way.

Mr. KELLEY. There were no unusual expenditures included in the last year?

Commander KIDD. None at all. The maintenance and repairs amount to about 7 per cent of the value of the entire plant.

FURNITURE.

Mr. KELLEY. What is the item for furniture for the buildings?

Commander KIDD. Last year that was \$55,630.93.

Mr. KELLEY. That was at a time when you were furnishing two wings of the building?

Commander KIDD. No, sir.

Mr. KELLEY. That would not occur this year?

Commander KIDD. Just how much we will require for that, I can not say offhand, but the breakage of furniture by the young men there is more than one would ordinarily expect. The labor alone for merely keeping up with the repair of chairs amounts to over \$5.00 a year.

Mr. KELLEY. What does this item for furniture include?

Commander KIDD. That includes everything in the way of furniture repairs (labor and material), and includes new furniture for replacements as may be required for the quarters for the midshipmen and all of the other buildings, of which there are a total of 116 major buildings.

Mr. KELLEY. You had to purchase new furniture, because you opened up two new wings?

Commander KIDD. Those two wings were opened up before last year.

Admiral WILSON. I do not think this furniture went into those wings.

Mr. KELLEY. You would not need \$50,000 worth of furniture for the academy each year. There must have been some special need for it last year.

Admiral WILSON. We will look into that.

Expenditure last year for furniture.

New furniture for midshipmen's rooms.....	\$11,212.6
Labor (repairs to furniture).....	16,612.4
Material.....	27,815.6
Total.....	55,640.6

Commander KIDD. The item of coal and other fuel amounts to \$197,576.90. That was on the basis of \$6.83 per ton for coal. Last winter was a very mild winter, and the expenditure for coal was not as great as the expenditure this winter. In order to keep the expenditure down this year, it is necessary to put the steam on for two hours and off for two hours and shift it around. We do not shut the plant down, but we shut the steam off Bancroft Hall for two hours and shift the steam to another group of buildings for two hours.

Admiral WILSON. This winter I went several times through buildings and saw midshipmen with their overcoats on because of the lack of heat.

Mr. KELLEY. Repair of buildings and fuel are the two big items.

Admiral WILSON. Yes, sir.

Mr. KELLEY. The others are about the same as for previous years.

Commander KIDD. Yes, sir.

Mr. KELLEY. Do you have much telephone expense?

Commander KIDD. No, sir; that comes from the Navy Department the appropriation "Pay, miscellaneous."

KELLEY. How does this item for pay of inspectors and draftsmen come in here?

Commander KIDD. The drafting force over there is paid under "Maintenance and repairs," and the inspectors for the new work going on and also the printers come under that.

EXPENDITURES AND ESTIMATES FOR MAINTENANCE AND REPAIRS.

KELLEY. You will put in the two statements, one showing expenditures and the other showing the estimates by classes?

Commander KIDD. Yes, sir.

KELLEY. I think you had better apportion that if you can.

Commander KIDD. Yes, sir.

Expenditures and estimates, maintenance and repairs, Naval Academy.

	Expenditures fiscal year 1921.	Original estimated expenditures fiscal year 1923.	Reduced estimated expenditures fiscal year 1923.
necessary repairs to buildings, wharves, and walls in the grounds of the Naval Academy, improvements, and fixtures.....	\$521,983.62	\$522,000.00	\$481,600.00
periodicals, maps, models, and drawings.....	125.00	125.00	100.00
and repair of fire engines; fire apparatus, and plants..	584.59	650.00	10,000.00
	18,603.34	19,000.00	15,000.00
and maintenance of all horses and horse-drawn vehicles at the academy, including the maintenance, and repair of three horse-drawn passenger-carrying vehicles to be used only for official purposes.....	10,335.80	13,000.00	10,000.00
plants.....	2,000.00	2,000.00	1,200.00
repairs of same.....	12,634.48	13,000.00	10,000.00
	2,378.56	3,000.00	2,000.00
for Government buildings and offices at the academy, including furniture for midshipmen's rooms; and repairs.....	55,630.93	55,000.00	50,000.00
furniture for midshipmen's rooms.....	\$11,212.61		
(repairs to furniture).....	16,612.63		
total.....	27,815.69		
	55,640.93		
other fuels.....	197,576.90	200,000.00	200,000.00
oil, and gas.....	14,555.00	14,000.00	14,000.00
on light and power plants.....	146,727.22	156,000.00	145,000.00
and clearing up stations and care of buildings.....	63,914.73	64,000.00	60,000.00
on fires, lights, fire engines, fire apparatus, and telephone, telegraph, and clock systems.....	3,837.44	4,000.00	3,000.00
labor.....	9,708.01	10,000.00	5,000.00
gas, water tax, postage, telephones, telegrams, tolls, and express.....	7,747.14	7,100.00	4,000.00
drawings.....	5,544.69	6,000.00	3,000.00
expenses.....	116.40	125.00	100.00
heating and lighting bandsmen's quarters.....	9,147.82	9,000.00	9,000.00
inspectors and draftsmen.....	12,587.82	9,000.00	4,000.00
astronomical instruments.....	4,325.62	5,000.00	3,000.00
employees on leave.....	72,190.43	65,000.00	55,000.00
insurance.....	22,947.02	23,000.00	20,000.00
ice and operation of de-ferritization plant.....	0.00	0.00	20,000.00
reconstruction of de-ferritization plant.....	\$3,000.00		
total.....	5,000.00		
engineers (3 men and 1 relief).....	7,000.00		
plant costs.....	5,000.00		
	20,000.00		
total.....	1,195,102.56	1,200,000.00	1,125,000.00

COMMUTATION OF RENT FOR BANDSMEN.

Mr. KELLEY. The next is commutation of rent for bandsmen. That is the same as last year, and you have the same number of bandsmen and the same pay?

Commander KIDD. Yes, sir.

NUMBER OF BANDSMEN.

Mr. KELLEY. How many have you in the band?

Admiral WILSON. It was established by a special act of Congress and I think it has somewhere between 60 and 75.

Mr. KELLEY. I wish you would put the exact number in the record.

Admiral WILSON. Very well.

NOTE.—The band consists of 75 musicians, including the leader.

TOTAL—MAINTENANCE AND REPAIRS.

Mr. KELLEY. How much does that make in all for repairs and maintenance?

Admiral WILSON. What we ask for, sir, is \$1,125,000.

Commander KIDD. And what we spent last year was \$1,195,102.56.

Mr. KELLEY. Probably we had better inquire of the Bureau of Yards and Docks as to the cost of such articles as go into repairs as compared with last year.

Commander KIDD. It is a question of men and material.

NUMBER OF GRADUATES TO BE COMMISSIONED.

Mr. KELLEY. There is just one other question, Admiral, and that is the number of officers you expect to make from your graduating class this year. How many of the graduates do you desire to have commissioned?

Admiral WILSON. Personally, I would like to see all the graduates commissioned on account of their having put in four years at the academy and having gone through all that time with the idea of becoming officers, but, of course, I have nothing to do with the number who do get commissions.

Mr. KELLEY. The line of the Navy is about 4,100, as I recollect, and I am told by the Navy Department that the natural loss from death, resignation, and other causes would run about 135. Of course, nobody intends to increase the number of the line above the 4,100, and what have you to say about the desirability of putting 500 boys into the Navy to fill 135 vacancies?

Secretary DENBY. May I say just a word? That is a pretty hard question to ask the admiral to answer. They have had hearings before the other committee and they suggested the question of whether or not it would be a good idea to have some of the old reserve officers who are still acting dropped and substitute new ones. I do not suppose Admiral Wilson has any way of forming any opinion as to that, but he would have an idea as to taking the new men and getting rid of the older men, the reserves and men of that character.

Mr. KELLEY. That is, create more vacancies by some other method.

Secretary DENBY. Yes.

Mr. KELLEY. You suggest that that be done by taking out of the line in some manner the officers who were recently taken in from the reserves?

Secretary DENBY. Some of them and some who would like to retire under the 30-year retirement law and would do it if we should let them out.

Mr. KELLEY. Admiral, have you figured at all how long it would take these boys to get above the grade of lieutenant?

Admiral WILSON. No, sir; I have not. All I know on the subject is what I heard in the Committee on Naval Affairs the other day, and gathered there was an arrangement by the Navy Department by which it was proposed not to increase the total number of officers but make vacancies by retirement so that the whole class could get in. I have not gone into any of the details nor have I considered it was my duty to do so.

Mr. KELLEY. I take it your answer to my question, to the effect that it was desirable to take this class in, was predicated upon the assumption that the Navy Department intended to make vacancies enough for these boys to fill.

Admiral WILSON. That is what I intend to convey, that the Navy Department, without increasing the total number, was to make some arrangement by which vacancies could be created for this class.

FUTURE PROMOTION OF GRADUATES COMMISSIONED.

Mr. KELLEY. And unless the number of vacancies was made equal to the number of midshipmen it would not be fair to the boys to put them in and have them take chances on being promoted, would it?

Admiral WILSON. I think those men down there would take any chance to get into the Navy.

Mr. KELLEY. They would now, but in three, four, or five years from now, when they begin to have families and find it impossible to be promoted—

Admiral WILSON (interposing). I doubt, under the most adverse conditions, whether it would be any worse than the time I came in the Navy, for I was 13 years from the time of graduation until I was made a junior lieutenant.

Mr. KELLEY. That is not a very good situation, is it?

Admiral WILSON. No, sir; but I survived it, and I am happy I am still here.

Mr. KELLEY. Of course the fact that the Navy was greatly expanded in the more recent years of your life has made a great deal of difference, I imagine.

Admiral WILSON. My idea was that the increase in the Navy was due to the necessities of our country, and I have thought that the same thing will probably obtain in the future. Although I personally recognize it is a hard time for our country economically, yet I think it is wrong to do away with the Navy until we are better satisfied it will not be needed again. In my day as a midshipman graduate many good officers were lost and sent into civil life who would have been of great value later on, and the amount expended to get people to fill their places was much more than what it would have cost to retain them.

Mr. KELLEY. I have not read the hearings before the Naval Committee, so, Mr. Secretary, I wish you would give us a sort of résumé of what the plans are.

Secretary DENBY. They have substantially been stated by Admiral Wilson.

Mr. KELLEY. I mean a little more in detail. What officers what grades do you intend to eliminate from the line?

Secretary DENBY. Well, we have no idea of eliminating any until it is the will of Congress to do so. We hope to keep the line off and eliminate some of the staff, if necessary, where they are shown to be disproportionate with the line.

Mr. KELLEY. I understood that Admiral Wilson predicated his recommendation for putting 541 officers into the line upon the thought that vacancies to that extent would be created.

Secretary DENBY. Those vacancies are—

Mr. KELLEY (interposing). He did not mean bookkeepers, masters, and that kind of thing?

Secretary DENBY. No; line officers; but there are a good many reserve officers who are now operating auxiliary ships of one kind or another.

Mr. KELLEY. They are in addition to the 4,100. You have 400 more in addition to the 4,100?

Secretary DENBY. That is so, too.

Mr. KELLEY. Admiral, is there anything further which you desire to say to the committee?

Dairy.

Admiral WILSON. As you know, the Government loaned the midshipmen's store \$255,000 for the dairy. Now the question comes up how to pay it back. It is only a question of bookkeeping to scratch it off the list. If the dairy is kept as it is to-day and midshipmen have to pay back the money, then you have a proposition that is worth about \$350,000 lying there belonging to the midshipmen to which the Government holds the deed.

Secretary DENBY. Has the land been bought?

Admiral WILSON. Yes, sir. I should like to make a proposition to you: As it is now, with the ration at \$1.08, it is our intention to save and eventually repay the Government the \$255,000 that was borrowed. Then the midshipmen would have paid for the dairy with the Government holding the deed (at least it does now, for the sum of \$255,000 is still due). That, I think, would be a better situation. What I suggest is that the Government wipe off the dairy, which will be a matter of bookkeeping and involve no appropriation. Then the ration could be reduced to 85 cents per day per midshipman, making a saving of 23 cents per day per midshipman in appropriation to be made. In other words, the Government is getting no money paid back for the \$255,000 loan and is paying money, \$1.08 per day per midshipman, whereas if you reduced the ration to 85 cents per day per midshipman and wiped off the indebtedness, it will be 23 cents per day per midshipman—that you will save.

Proprietary bill. The present

years which

the Treasury. The proposed way, by a matter of bookkeeping, you will reduce the appropriation by 23 cents per day per midshipman.

Mr. FRENCH. Your plan would be to make the dairy a part of the academy plant?

Admiral WILSON. A Government establishment.

Mr. FRENCH. And it would contribute its part in lieu of what we would otherwise appropriate for the support of the boys?

Admiral WILSON. Yes, sir. For 85 cents a day we will feed the midshipmen—and they live well—run the dairy, and supply them with milk. The Government will have a property worth \$350,000 on which they have paid a loan of \$255,000.

Mr. KELLEY. The boys pay a certain amount for their milk as a part of the ration of \$1.08?

Admiral WILSON. Yes, sir.

Mr. KELLEY. The reason why the ration is so high is because of the keeping of the farm the cost of the milk is above what it would be if bought from private people?

Admiral WILSON. No; not exactly. We get much better milk.

Mr. KELLEY. I know that the milk is better, but it costs more?

Admiral WILSON. It costs 80 cents a gallon.

REDUCTION OF DAILY RATION TO PAY FOR DAIRY.

Mr. KELLEY. Have you saved anything?

Admiral WILSON. Yes, sir. You could cut the ration to \$1.02 from \$1.08—6 cents a ration—and we would save up and probably be able to pay the Government the money back in four years. But you could reduce the appropriation by a certain amount if you would wipe off this question of bookkeeping, which takes no money.

Mr. KELLEY. You want to reduce the ration 6 cents a day and use the 6 cents?

Admiral WILSON. No. If you want the dairy to go on as it is today we say that you can cut the ration to \$1.02.

Mr. KELLEY. That would be a saving of 6 cents a day, not on the dairy, but on other things?

Admiral WILSON. Yes, sir.

Mr. KELLEY. How can you reduce the ration to 85 cents?

Admiral WILSON. Because the difference is the money we are going to save to pay on the loan. What is the use of appropriating \$1.02 a day to the midshipman and let him put 17 cents into a fund to pay you back at the end of four years? Why not wipe off the \$255,000—it is a mere matter of bookkeeping—and reduce your appropriation by 17 cents for every midshipman per day?

Mr. KELLEY. Of this \$1.08, what part of it goes to create a fund to pay back the Government?

Admiral WILSON. We will run the ration about 85 cents.

Mr. KELLEY. Then the Government will get 17 cents out of each \$1.02 that it appropriates?

Admiral WILSON. Yes, sir.

Mr. KELLEY. Of course, the ration will come down?

Commander HARRIS. The year before it cost \$1.22.

Mr. BYRNES. Then they will get the milk for nothing?

Admiral WILSON. The dairy then would be a part of the Government. When the lien of the midshipmen is declared off and the Government assumes the dairy, worth \$350,000, immediately you cut down the ration to 85 cents and make your appropriation bill tot so much less, the difference between 85 cents and \$1.02.

Mr. KELLEY. Have you some money to the credit of the Government?

Admiral WILSON. \$38,000.

Mr. KELLEY. And that is the amount you could pay back to the Government any time you wanted to?

Admiral WILSON. Yes, sir.

Mr. FRENCH. That is in the fund?

Admiral WILSON. Yes, sir.

Mr. FRENCH. What is the fund called?

Admiral WILSON. It is saved up to pay back the \$255,000.

Mr. KELLEY. Is that invested anywhere?

Admiral WILSON. No, sir; it is in the Treasury.

Mr. KELLEY. So the original loan has been reduced by \$38,000?

Commander HARRIS. No; it is held in reserve.

Mr. KELLEY. As against the advance?

Commander HARRIS. Yes, sir.

Mr. KELLEY. You can not draw it out?

Admiral WILSON. It is to Commander Harris's credit. We could use it for anything. We have put it aside as a sinking fund toward the repayment. The only question about it is whether we shall use the ration at a certain point which will wipe that out.

Mr. KELLEY. Wipe it out by legislation?

Admiral WILSON. Yes, sir; and reduce the ration and make your total figure so much less in the appropriation bill.

Mr. KELLEY. So that those who talked about the comparison between the ration at the Naval Academy and at the Military Academy would not realize that we are wiping out a debt here?

Admiral WILSON. No, sir.

Mr. BYRNES. West Point will then want free milk?

Admiral WILSON. It has not been free milk. The midshipmen have borrowed this money and with care and attention have built up a dairy which they are utilizing for their health and comfort. If the Government will say to us, "You need not pay back that sum; let it always stay on the books," we can reduce the ration to 85 cents right here, and we will run the dairy and feed the midshipmen with everything; but if we have to pay back the \$255,000 that means that we have to have some extra money which you will give us to pay it back because you are holding this property which is worth \$350,000.

Mr. KELLEY. Or we can let the loan stand and reduce the ration to 85 cents?

Admiral WILSON. I am perfectly willing to let the loan go along and have the ration reduced to 85 cents, provided you say it is

all right.

Mr. KELLEY. If at any time the Treasury should insist on the ration being increased?

Admiral WILSON. That is just the proper way to handle it, with the owner's consent.

1000 pro

ing a lot of midshipmen. There is the property worth that money. I think it would be a business proposition to settle it and for the Government to assume it.

Mr. KELLEY. Now it is a midshipmen's affair?

Admiral WILSON. Pure and simple; yes, sir.

Mr. KELLEY. You have money enough to pay the store the \$69,000 that you owe?

Admiral WILSON. Yes, sir.

Mr. BYRNES. Where will you get the money to wipe it off?

Admiral WILSON. Just wipe it off. I think it would be a valuable thing to settle and not have the \$350,000 property belong to a lot of midshipmen.

Mr. KELLEY. Is there any other statement you would like to make, Admiral?

Admiral WILSON. No, sir.

Mr. KELLEY. We are very much obliged to you.

, WEDNESDAY, MARCH 15, 1922.

MARINE CORPS.

STATEMENTS OF HON. EDWIN DENBY, SECRETARY OF THE NAVY; MAJ. GEN. JOHN A. LEJEUNE, COMMANDANT MARINE CORPS; BRIG. GEN. CHARLES L. McCAWLEY, QUARTERMASTER; BRIG. GEN. GEORGE RICHARDS, PAYMASTER; LIEUT. COL. HUGH MATTHEWS, ASSISTANT QUARTERMASTER; LIEUT. COL. H. C. SNYDER; AND CAPT. L. C. SHEPHERD.

Mr. KELLEY. We have with us this afternoon the Secretary of the Navy, General Lejeune, General Richards, and other officers of the Marine Corps for the consideration of the Marine Corps estimates. General, would you like to make a general statement before we go into details?

General LEJEUNE. Yes, sir.

Mr. KELLEY. If so, we will be very glad to have you go ahead your own way.

GENERAL STATEMENT.

General LEJEUNE. Mr. Chairman and gentlemen of the committee, in the hearings before this committee last year I described the measures taken to administer the affairs of the Marine Corps economically. I pointed out some of the steps which we had taken to cause a reduction in the expense of maintaining the Marine Corps. The program of economy has been continued with increasing intensity until the present time. As no great result can be attained without cooperation, we have endeavored in every way practicable to educate public opinion within the Marine Corps and to instill into the minds of officers and men the vital necessity of preventing waste and the great importance of putting our corps on an economical basis. This program of education has been conducted by means of orders, circular letters, bulletins, personal letters, personal talks, addresses to

groups of officers, notably at Quantico, and especially through weekly conferences held at headquarters Marine Corps, where matters of interest or importance to the Marine Corps are thoroughly discussed.

Stenographic notes of the discussions at these conferences are taken, and after correcting the rough draft mimeographed copies are made and transmitted to all the posts of the Marine Corps. In all of these conferences the subject of economy has been discussed upon, and the economies effected have been described. In this way the entire Marine Corps is kept informed of our policy, and each one has had the benefit of the experience of others. All our officers and men have cooperated loyally, faithfully, and efficiently, and enormous results have been achieved.

ECONOMIES EFFECTED.

I will not attempt in this statement to go into the details, but I, however, wish to mention some of the salient features of our economical program. On January 1, 1921, we returned to the system of an annual money allowance of clothing for the enlisted men. During the war this system was abandoned and clothing was issued to men gratuitously. This method, while necessary in time of war, resulted in great waste. The return to the system in effect prior to the war has resulted in an annual saving of about \$1,332,000. Another great saving has been effected by reducing the number of civil employees. Since the close of the fiscal year ending June 30, 1920, a total reduction of \$775,502.74 in this item of expense has been effected at Quantico, Parris Island, and the depot of supplies at Philadelphia. In the recruiting service a large reduction of expense has been made. During the calendar year 1921 the total cost of service, including commutation of rations and quarters for recruits, was \$490,000 less than the preceding calendar year. This does not include cost of transporting recruits, which is chiefly a function of the number of men required to be enlisted, although in this item a saving of transportation charges of \$10 per man has been effected. We did that by intensifying recruiting at the near-by stations and minimizing it at the distant stations.

Since January 1, 1922, savings in rentals at the rate of \$12.33 per annum have been made. Clerical force on duty at headquarters United States Marine Corps was reduced by 177 between July 1, 1920, and February 1, 1922, with a saving in money to the Government of \$85,500 and a much larger saving in the cost of administration of headquarters.

In other words, that money represents the difference in the cost of keeping men on a commutation basis and the cost of keeping them at the barracks, but the actual cost of maintaining the barracks and quarters has been about \$400,000 less. The men have been returned to duty and are now carrying rifles instead of doing office work.

REDUCTION IN PER CAPITA EXPENSE.

By other administrative measures have been adopted which have resulted in large savings in the appropriation. I do not deem it necessary to take any further

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committee by enumerating them, especially as all of the details will be brought out by Brigadier General McCawley in his statement. I do wish to mention, however, the following reductions in expenditures, viz:

(a) Fiscal year ending June 30, 1920, there was an average of 16,161 enlisted men supported by the Marine Corps and an expenditure of \$17,473,268 under the maintenance appropriation.

(b) In the fiscal year ending June 30, 1921, there was an average of 20,015 enlisted men and an expenditure of \$13,620,844.

(c) In the current fiscal year there will be an average of 21,000 enlisted men and an expenditure of \$10,155,050.

A comparison of these figures shows that the per capita expense under the maintenance appropriation during the three years in question was as follows: 1920, \$962; 1921, \$694; 1922, \$483.

This reduction in per capita expense was made possible partly by the falling prices and partly by economies in administration. In this connection, I feel that I should remind the committee that the Marine Corps has asked for no deficiency appropriation this year. When the current naval appropriation bill became a law in July last, it seemed impossible for the corps to maintain an average enlisted strength of 21,000 on the funds allotted; as to do so meant the support of 1,000 more men than the year before on funds which were \$3,500,000 less than the amount expended during that year. We determined, however, to accomplish the task if it was humanly possible to do so; and we now feel safe in saying that we have succeeded and that there will be no deficiency in our appropriation.

EXPENSE OF GUARDS FOR MAIL TRAINS.

In addition to the usual expenses we financed the mail guards, an extra expense which we estimate to be about \$325,000, and which we drew from the funds which we had reserved for an emergency.

Our success has been due to the systematic handling of Marine Corps funds, to the exercise of rigid economy, to the authority to utilize our appropriations as one fund, and to the fact that we entered this year with large stocks of supplies on hand. Part of these stocks, such as provisions, were purchased during the latter months of the preceding fiscal year, and the remainder consisted of supplies retained during the World War. We will not be so fortunate next year, as our stocks have been very much depleted, and the lack of funds this year will prevent the purchase of supplies in advance. For this reason our estimates for our maintenance appropriations for next year are somewhat in excess of the amounts appropriated in this year. I am referring not to our original estimates, but to our revised estimates. The original estimates were prepared last July, when it seemed impossible to maintain the corps for a smaller amount, but profiting by our experience since that time, we have revised them downward and have succeeded in materially reducing them; that is, the figures we will present to you to-day are very much below the figures that were sent to you through the Budget.

We feel that the revised estimates are based on sound principles and that the entire amount requested will be necessary.

OFFICERS AND ENLISTED MEN.

These estimates are for the support of only 20,000 men, a reduction of 1,000 below the average strength for this year. The number estimated for was prescribed by the Navy Department, and does not represent the number of men required to perform satisfactorily the peace-time duties assigned to the Marine Corps. A summary of those duties and the number of officers and men now detailed for their performance are as follows:

Personnel.	Enlisted.	Commissioned.
(a) Marine detachments on vessels of the fleet.....	1, 938	10
(b) Garrisons for Haiti, Santo Domingo, Virgin Islands, Guam, Nicaragua, and Peking.....	5, 069	28
(c) Guards for navy yards, naval stations, ammunition depots, etc., at home and abroad.....	4, 379	119
(d) Detachments for duty at training stations, recruiting service, at headquarters, supply depots, staff offices, etc.....	2, 469	212
(e) Recruits under training.....	1, 550	
(f) Expeditionary forces for emergency use:		
East coast.....	3, 078	95
West coast.....	887	5
(g) Aviation at home and abroad.....	3, 965	71
(h) Officers schools (students).....	750	64
	20, 120	914

The number unaccounted for (880 men and 28 officers) are casual detachments en route to and from foreign stations, sick in hospital, etc.

Mr. KELLEY. And these new estimates are based upon 20,000 men?

General LEJEUNE. Yes, sir. In this summary the officers and men are grouped by classes of duties for convenience of reference and to afford a basis of discussion. The tables of complements, now submitted, give in detail the number of officers and men authorized for each detachment, post, barracks, or ship, both at home and abroad. They account for every officer and every man now in the Marine Corps, and are as follows:

Distribution of the commissioned complement of the Marine Corps, Feb. 10, 1922.

Annapolis, Md.: United States Naval Academy.....	3
Boston, Mass.: Marine Barracks, navy yard.....	5
Charleston, S. C.: Marine barracks and naval prison.....	1
Hampton Roads, Va.: Naval operating base.....	3
Hingham, Mass.:	
Naval ammunition depot.....	1
Receiving ship.....	1
Indianhead, Md.: Naval proving grounds.....	1
Key West, Fla.: Naval operating base.....	2
New London, Conn.: Naval submarine base.....	2
New Orleans, La.: Marine barracks, naval station.....	2
Newport, R. I.: Naval torpedo station.....	3
New York, N. Y.:	
Marine barracks, navy yard.....	8
Receiving ship.....	1
Dover, N. J.: Naval ammunition depot.....	1
Norfolk, Va.:	
Marine barracks, navy yard.....	7
Sea school.....	3
St. Juliens Creek, Va.: Naval ammunition depot.....	1
Pensacola, Fla.: Naval air station.....	2

Philadelphia, Pa.:	
Marine barracks, navy yard.....	10
Receiving station.....	1
Port Mifflin, Pa.: Naval ammunition depot.....	1
Portsmouth, N. H.:	
Marine barracks, navy yard.....	4
Naval prison detachment.....	7
South Charleston, W. Va.: Naval ordnance plant.....	1
Washington, D. C.:	
Marine barracks.....	2
Marine Corps Institute.....	11
Marine barracks, navy yard.....	4
Headquarters Marine Corps:	
Major general commandant and aids.....	5
Recruiting.....	1
Personnel.....	3
Operations and training.....	9
Adjutant and inspector.....	7
Quartermaster.....	9
Paymaster.....	11
Special duty with Army and Navy.....	12
Orktown, Va.: Naval mine depot.....	1
Parris Island, S. C.: Marine barracks (to fluctuate between 33 and 48, dependent upon number of recruits under instruction).....	40
Staff offices (east):	
Assistant paymaster, Philadelphia, Pa.....	1
Assistant paymaster, Atlanta, Ga.....	1
Depot of supplies, Philadelphia, Pa.....	4
Depot of supplies, Hampton Roads, Va.....	2
Recruiting: Recruiting bureau and service.....	36
San Diego Island, Calif.: Barracks detachment, naval prison detachment, naval ammunition depot, rifle range detachment, and recruit depot.....	21
Seget Sound, Wash.:	
Marine barracks, navy yard.....	6
Naval ammunition depot.....	1
Seport, Wash.: Naval torpedo station.....	1
San Diego, Calif.:	
Marine barracks.....	4
Naval air station.....	1
San Pedro, Calif.: U. S. S. Eagle No. 11.....	1
Department of the Pacific, San Francisco, Calif.....	7
Shipboard:	
Cavite, P. I.....	5
Olongapo, P. I.....	3
Managua, Nicaragua.....	5
Pearl Harbor, Hawaii.....	10
Guam.....	15
Guantanamo Bay, Cuba.....	5
Virgin Islands.....	7
Peking, China.....	11
San Juan, P. R.....	1
Casuals (including sick in hospital, en route, etc.).....	28
Shipboard (should have 140).....	98
San Domingo, Dominican Republic (should have 181).....	130
San Antonio, Va. (should have 196).....	127
San Diego, Calif., Fifth Brigade (should have 40).....	27
Shipboard (should have 104).....	71
Shipboard (students).....	64
Total (should have 1,086).....	942

RECAPITULATION.

Total officers in Marine Corps.....	942
Permanent details to staff duties and four-year details of line officers to staff duties.....	71
Line officers (additional) performing staff duties.....	35

OFFICERS AND ENLISTED MEN.

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Personnel.	Enlisted.	Commissioned.
(a) Marine detachments on vessels of the fleet.....	1,938	
(b) Garrisons for Haiti, Santo Domingo, Virgin Islands, Guam, Nicaragua, and Peking.....	5,069	
(c) Guards for navy yards, naval stations, ammunition depots, etc., at home and abroad.....	4,379	
(d) Detachments for duty at training stations, recruiting service, at headquarters, supply depots, staff offices, etc.....	2,469	
(e) Recruits under training.....	1,550	
(f) Expeditionary forces for emergency use:		
East coast.....	3,078	
West coast.....	887	
(g) Aviation at home and abroad.....	3,965	
(h) Officers schools (students).....	750	
	20,120	

The number unaccounted for (880 men and 28 officers) are casual detachments en route to and from foreign stations, sick in hospital, etc.

Mr. KELLEY. And these new estimates are based upon 20,000 men.

General LEJEUNE. Yes, sir. In this summary the officers and men are grouped by classes of duties for convenience of reference and to afford a basis of discussion. The tables of complements, now submitted, give in detail the number of officers and men authorized for each detachment, post, barracks, or ship, both at home and abroad. They account for every officer and every man now in the Marine Corps, and are as follows:

Distribution of the commissioned complement of the Marine Corps, Feb. 19, 1923.

Annapolis, Md.: United States Naval Academy.....

Boston, Mass.: Marine Barracks, navy yard.....

Charleston, S. C.: Marine barracks and naval prison.....

Hampton Roads, Va.: Naval operating base.....

Hingham, Mass.:
 Naval ammunition depot.....
 Receiving ship.....

Indianhead, Md.: Naval proving grounds.....

Key West, Fla.: Naval operating base.....

New London, Conn.: Naval submarine base.....

New Orleans, La.: Marine barracks, naval station.....

Newport, R. I.: Naval torpedo station.....

New York, N. Y.:
 Marine barracks, navy yard.....
 Receiving ship.....

Dover, N. J.: Naval ammunition depot.....

Norfolk, Va.:
 barracks, navy yard.....

.....

Philadelphia, Pa.:	
Marine barracks, navy yard	10
Receiving station	1
Port Mifflin, Pa.: Naval ammunition depot	1
Portsmouth, N. H.:	
Marine barracks, navy yard	4
Naval prison detachment	7
South Charleston, W. Va.: Naval ordnance plant	1
Washington, D. C.:	
Marine barracks	2
Marine Corps Institute	11
Marine barracks, navy yard	4
Headquarters Marine Corps:	
Major general commandant and aids	5
Recruiting	1
Personnel	3
Operations and training	9
Adjutant and inspector	7
Quartermaster	9
Paymaster	11
Special duty with Army and Navy	12
Portsmouth, Va.: Naval mine depot	1
Marine barracks (to fluctuate between 33 and 48, dependent upon number of recruits under instruction)	40
Staff offices (east):	
Assistant paymaster, Philadelphia, Pa.	1
Assistant paymaster, Atlanta, Ga.	1
Depot of supplies, Philadelphia, Pa.	4
Depot of supplies, Hampton Roads, Va.	2
Recruiting: Recruiting bureau and service	36
Marine barracks, navy yard	6
Naval ammunition depot	1
Naval torpedo station	1
San Diego, Calif.:	
Marine barracks	4
Naval air station	1
San Pedro, Calif.: U. S. S. Eagle No. 11	1
Department of the Pacific, San Francisco, Calif.	7
Flotilla:	
Cavite, P. I.	5
Olongapo, P. I.	3
Managua, Nicaragua	5
Pearl Harbor, Hawaii	10
Guam	15
Guantanamo Bay, Cuba	5
Virgin Islands	7
Peking, China	11
San Juan, P. R.	1
Casuals (including sick in hospital, en route, etc.)	28
San Juan, P. R. (should have 140)	98
San Juan, P. R. (should have 181)	130
San Juan, P. R. (should have 196)	127
San Juan, P. R., Fifth Brigade (should have 40)	27
San Juan, P. R. (should have 104)	71
Schools (students)	64
Total (should have 1,086)	942

RECAPITULATION.

Total officers in Marine Corps	942
Permanent details to staff duties and four-year details of line officers to staff duties	71
Line officers (additional) performing staff duties	35

Number of officers allotted to aviation	71
Number of officers engaged on line duties	765
Total	942
At sea	90
Guards for navy yards, ammunition depots, naval stations, at home and abroad	119
Aviation at home and abroad	71
Garrisons for Haiti, Santo Domingo, Virgin Islands, Peking, Managua, and Guam	296
Permanent detachments for training stations, recruiting service, headquarters, staff officers, supply depots, Marine Corps Institute, Quantico, and San Diego	212
Expeditionary:	
East coast	16
West coast	27
Schools (students)	64
Casuals (including sick in hospital, en route, etc.)	28
Total	942

SCHOOLS.

Instructors	20
Students:	
Company officers' school	21
Field officers' school	24
Signal school, New Jersey	4
General Staff School, Washington, D. C.	2
Fort Leavenworth, Kans.	4
Camp Benning, Ga.	4
Naval War College, Newport, R. I.	5
Camp Holabird, Md.	2
Total students	64
Total instructors	20
Total	84

The above is the total now in schools.

Distribution of authorized enlisted personnel on active duty at home, on foreign station, and at sea, March 1, 1922, 21,000.

Annapolis, Md.: United States Naval Academy	80
Alexandria, Va.: Naval torpedo station	12
Boston, Mass.: Marine barracks, navy yard	125
Charleston, S. C.: Marine barracks, navy yard	150
Chelsea, Mass.: Hospital guard	20
Hampton Roads, Va.: Naval operating base	125
Hingham, Mass.:	
Naval ammunition depot	50
Receiving ship	50
Indianhead, Md.: Naval proving ground	15
Key West, Fla.: Naval operating base	75
New London, Conn.: Naval submarine base	50
New Orleans, La.: Marine barracks, naval station	100
Newport, R. I.: Naval torpedo station	125
New York, N. Y.:	
Marine barracks, navy yard	225
Receiving ship detachment	25
Naval hospital guard	20
Fort Mifflin, N. Y.: Naval ammunition depot	12
Fort Mifflin, N. Y.: Naval ammunition depot	50
Total	675

Norfolk, Va.:		
Marine barracks, navy yard	202	
Sea school	65	
Naval hospital guard	20	
Fort Juliens Creek, Va.: Naval ammunition depot	50	
Fort Pensacola, Fla.: Naval air station	70	
Philadelphia, Pa.:		
Marine barracks, navy yard	302	
Receiving station	50	
Fort Mifflin, Pa.: Naval ammunition depot	50	
Point Isabel, Tex.: Naval radio station	25	
Portsmouth, N. H.:		
Marine barracks, navy yard	115	
Naval prison detachment	152	
Fort Cliffs, Me.: Naval radio station	12	
Fort South Charleston, W. Va.: Naval ordnance plant	36	
Washington, D. C.:		
Marine barracks, barracks detachment	50	
Marine Corps institute	178	
Navy yard	125	
Naval hospital guard	20	
Marine band	67	
Headquarters, Marine Corps, Washington, D. C.:		
Assistant to Commandant, major general commandant, and adjutant and inspector's offices	90	
Paymaster department	50	
Quartermaster department	73	
Navy building guard	19	
Garage and dock	10	
	242	
Portsmouth, Va.: Naval mine depot		44
Quantico, Va.:		
Post permanent detachments	457	
Third and Fourth Brigades	3,078	
Parris Island, S. C.:		
Post organizations	710	
Recruits and apprentices	1,250	
	1,960	
Staff offices (east):		
Assistant paymaster, Philadelphia, Pa.	9	
Assistant paymaster, Atlanta, Ga.	10	
Depot of supplies, Hampton Roads, Va.	41	
Depot of supplies, Philadelphia, Pa.	70	
Recruiting (east):		
Eastern division	403	
Central division		
Southern division		
Recruiting bureau		
Recruiting (west):		
Western division		
Mountain division		
DEPARTMENT OF THE PACIFIC.		
Parris Island, Calif.:		
Barracks detachment and guard company	304	
Rifle range detachment	25	
Naval ammunition depot	36	
Naval prison detachment	80	
	445	

Recruit depot, Mare Island, Calif.:

Instructors.....	1
Recruits.....	1
Sea school.....	1
	<hr/> 4

Puget Sound, Wash.:

Marine barracks, navy yard.....	1
Naval ammunition depot.....	

Keyport, Wash.: Naval torpedo station.....

San Diego, Calif.:

Barracks detachment, marine barracks.....	
Navy repair base.....	
Naval radio station, Choilas Heights.....	
Naval fuel plant, La Playa.....	
Naval air station.....	
	<hr/>

Fifth Brigade, Seventh Regiment.....

San Pedro, Calif.: U. S. S. *Eagle No. 11*.....

San Francisco, Calif.:

Department of the Pacific and assistant adjutant and inspector's offices.....	
Assistant paymaster.....	
Depot of supplies.....	

Aviation.....

Marine detachments afloat.....	1
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FOREIGN.

Santo Domingo.....	2
Haiti.....	1
Cavite, P. I.....	
Olongapo, P. I.....	
Managua, Nicaragua.....	
Pearl Harbor, Hawaii.....	
Guam, Mariana Islands.....	
Guantanamo Bay, Cuba.....	
Virgin Islands.....	
Peking, China.....	
Russian Island, Vladivostok, Siberia.....	
Total.....	<hr/> 5
Casual detachments.....	
Grand total.....	<hr/> 21

DISTRIBUTION OF AUTHORIZED ENLISTED PERSONNEL ON ACTIVE DUTY AT HOME
FOREIGN STATION, AND AT SEA.

At sea.....	1
Guards for navy yards, ammunition depots, naval stations, etc., at home and abroad.....	4
Aviation (at home and abroad).....	
Garrisons for Haiti; Santo Domingo; Virgin Islands; Peking, China; Managua, Nicaragua; and Guam, Mariana Islands.....	5
Permanent detachments for training stations, recruiting service, headquarters, staff offices, supply depots, Marine Corps Institute, Quantico, and San Diego, and Marine Band.....	2
Recruits under training.....	1
Expeditionary force:	

East coast (consisting of third brigade, First Regiment—Technical and signal; Tenth Regiment—Artillery; fourth brigade, Fifth Regiment—Infantry and machine gun units; Sixth Regiment—Infantry and machine gun units
West coast (consisting of fifth brigade, Seventh Regiment—In-

The strength of the detachments, etc., was arrived at after a most painstaking investigation, and since they have been put into effect any protests have been received from commandants and other responsible officers on account of the reduction in the authorized complements of the detachments at the stations under their command, and repeated requests have been received urging increases in both officers and men. Very recently a strong appeal for 200 additional men came from Pearl Harbor. Practically all requests for increases have been refused, and we have little by little built up our expeditionary force at Quantico for emergency use. This force is the part of the Marine Corps. Without it our hands are tied, we cannot function. With it we stand always ready for any emergency that may arise at home or abroad. This expeditionary force fully organized and equipped, trained to the minute, and with high esprit waits any call, whether it be from the State Department for enforcement of the Monroe doctrine or whether it be from some other department of the Government, as in the recent case of protecting the mails from the depredations of bandits. The policy of the Marine Corps is to be of the greatest possible use to the people and to the Government of the United States in peace as well as in war. The readiness for service of the expeditionary force at Quantico makes me fully confident that we will be able to live up to our policy.

In November last, within a few hours after the call of the Post Office Department, the men from Quantico and San Diego were guarding trains, mail trucks, and post offices, and not one dollar was stolen from the mails during the four months that they were guarded by the marines. They have all been withdrawn. The last man went home on the 15th.

Quantico is also a reservoir from which we draw men for sea and for tropical service and into which are poured the men returning home. I wish to urge as strongly and as earnestly as I am capable of doing that no reduction be made in the enlisted strength, either by change in the basic law or by means of appropriations. We need every man of the 21,000 authorized for this year.

NEED OF ADDITIONAL OFFICERS.

In conclusion, I deem it essential to point out the vital importance of maintaining the officer personnel at a number somewhat in excess of the number representing 4 per cent of the enlisted men appropriated for. Briefly, the reasons for requiring the additional officers are the following:

(a) The quota of officers allowed the Marine Corps is much less than that allowed either the Army or the Navy.

For our line and staff departments the law provides 4 per cent of the enlisted men: in the Navy for the line the law is 4 per cent, and in the Army it is about 5½ per cent. The bill just reported by this committee provides for 115,000 men and 11,000 officers, which is about 9½ per cent.

Mr. KELLEY. That is the natural surplus that would be required for purposes of expansion in case of sudden necessity.

General LEJEUNE. Yes, sir.

Mr. KELLEY. I think that is sound doctrine.

General LEJEUNE. (b) Fifty officers of the authorized quota required for assignment to the gendarmerie of Haiti and the national police force of Santo Domingo. They are included in one per cent, and we have to provide 50 additional officers.

(c) A larger quota of officers is needed in the Marine Corps account of the fact that it is divided into such a large number of small detachments. If it were concentrated in one post not so much would be necessary.

(d) Aviation requires a quota of officers of 10 per cent of enlisted strength.

(e) It is essential to the future efficiency of the Marine Corps that a sufficient number of officers should be provided to permit of their being given an opportunity to receive a military education at Marine Corps officer schools. We took in a large number of officers during the war and we have to send them to school to broaden their education. They came in after three months' training in an officer training camp, and we have to send them to school to continue their education.

(f) In common with all military and naval services it takes much longer to train officers than it does to train enlisted men. Therefore some excess of officers should be allowed. There is no intention on my part of filling the quota of officers. In fact, our estimates provide for 100 officers less than the total quota. I ask that these estimates be accepted.

Finally, I wish to assure the committee that we will continue to do all in our power to conform to the expressed wishes of Congress. I have outlined our policy and our needs, but the decision rests in the hands of Congress. Whatever that decision may be, we will do our best to build up the efficiency of the Marine Corps and to make it the finest military organization in the world.

Mr. KELLEY. Which one of your officers will discuss with the committee the distribution of the 20,000?

General LEJEUNE. I will myself, sir.

Mr. KELLEY. Have you a list showing the distribution?

General LEJEUNE. Yes, sir; the distribution of both officers and men. Those lists represent the authorized complements. The number of men actually at the different stations varies slightly from day to day.

Mr. KELLEY. You will put in the record this table of distribution.

General LEJEUNE. Yes, sir.

NUMBER OF MEN REQUIRED AT SEA.

Mr. KELLEY. The total number required at sea is 1,938?

General LEJEUNE. Yes, sir.

Mr. KELLEY. Just how do you arrive at that number?

General LEJEUNE. That is the number actually at sea. This total was made up a few days ago, but to-day there are actually 65 men less, because the *Columbia* was put out of commission the other day.

Mr. KELLEY. Are they on other than the capital ships?

General LEJEUNE. They are chiefly on the capital ships, but they have detachments on some ships which are doing special duty. There are some here on the

30 or 40 men, and at Constantinople we have some men, as well as in China, but they are chiefly on the capital ships. I might add that in the capital ships which the treaty provides shall be scrapped we have marines on one—64 men on the *Connecticut*.

Mr. KELLEY. What is your quota for capital ships?

General LEJEUNE. It varies with the size of the ship.

Secretary DENBY. The quota is not larger than 90.

Mr. KELLEY. Ninety is the maximum?

Secretary DENBY. Yes.

General LEJEUNE. That is the flagship quota. We put a regular detachment on board and an additional number of men when it is a flagship. The quota of marines is really fixed by the Bureau of Navigation as a part of the complement of the ship, and it varies from 90 down to 64 on the capital ships and on the other ships according to the needs of the service.

Mr. KELLEY. The number is more or less elastic between 64 and 90?

General LEJEUNE. It is, but it is based on the duties which the men have been given on board ship. It is a matter that has been thrashed out for years.

Mr. KELLEY. Do they have some duties in connection with the operation of the ship?

General LEJEUNE. Yes, sir: on each ship a part of the battery is assigned to the marine detachment, and it forms a part of the battle force of the ship. The marines aboard ship are treated in no different way from the enlisted men of the Navy.

Mr. KELLEY. Do you know how many marines would be assigned to duties on a ship which enlisted men of the Navy would be required to do if marines were not carried?

General LEJEUNE. They would practically replace man for man, because the duties performed by marines are the same as would be performed by enlisted men of the Navy.

Mr. KELLEY. If there are 90 marines on board ship, that would be equivalent to adding 90 more men to the enlisted personnel of the Navy?

General LEJEUNE. Yes, sir.

Mr. KELLEY. On that ship?

General LEJEUNE. Yes, sir.

Secretary DENBY. They all have battle stations.

Mr. KELLEY. If they were not there Navy men would have to be put on to take their places if all the stations were filled?

Secretary DENBY. Speaking broadly, that is true.

Mr. KELLEY. On the battleships?

Secretary DENBY. Yes; on the battleships that is true.

Mr. KELLEY. So, in figuring the personnel of a battleship, Mr. Secretary, the marines should be taken into account as a part of the complement?

Secretary DENBY. Yes. They man the secondary batteries and sometimes the turret batteries, but, as a rule, the secondary batteries.

Mr. KELLEY. In case you are a little short of marines you could probably make a little saving there.

General LEJEUNE. We have made a saving on two ships. The *Connecticut* will go out of commission, I presume, as soon as the treaty is ratified, or shortly thereafter, and the *Columbia* has already gone

out, so in those instances there is a saving of approximately 130 men, and if any of the others go out of commission we will save the number of men on board those ships, because ships in reserve do not carry any marines.

Secretary DENBY. And none of the new building program carries any marines. The light cruisers would not carry marines. I would like to qualify that statement.

General LEJEUNE. The two new battleships will carry marines, the *Colorado* and *Washington*.

Secretary DENBY. Yes; and the light cruisers and scout cruisers may, but I do not think the regular complement of marines would be aboard. However, that will not make a change in the estimates, because only three of those scout cruisers will come in next year.

Gen. LEJEUNE. I will say this, that the *Delaware* and *North Dakota* are provided to be scrapped and the men aboard them are to be transferred aboard the *Colorado* and the other battleship.

Mr. KELLEY. I imagine the Secretary would want to keep those in until the new ones take their places?

Secretary DENBY. Yes, sir; they are now a part of the complement, and they would be kept on the old ships until the new ships come in.

Mr. KELLEY. You have not brought up your distribution of the personnel, Mr. Secretary, but I suppose in any event you want to keep the 18 battleships?

Secretary DENBY. I have not brought that table down yet; I have not been able to go over it.

GUARDS FOR NAVY YARDS, NAVAL STATIONS, ETC.

Mr. KELLEY. The next is for guards for navy yards, 4,379.

General LEJEUNE. That is for all navy yards, naval stations, ammunition depots, and naval prisons.

Mr. KELLEY. And is that the number you have now?

General LEJEUNE. That is the number we actually have now, and it represents a cut of about 1,500 from what they formerly had; they have been cut everywhere and we have cut them down to pretty nearly the limit. I have a folder full of letters from commandants asking for more men.

Mr. KELLEY. Everybody wants the marines?

General LEJEUNE. At Bremerton, Pearl Harbor, Mare Island, and so on.

Mr. KELLEY. If it should happen that the navy yards are partially tied up this coming year, would that increase or decrease the number of marines necessary?

General LEJEUNE. We have only had one place closed during this year—New Orleans. We attempted to reduce the number there, but the commandant protested so vigorously and pointed out the increased necessity for marines that we did not cut down the force. He pointed out that he had been deprived of his interior watchmen; that the stores were all there; that the buildings were all there; and that he did not have the workmen, who furnished some protection—so we did not cut down the force at all; we left it as it originally stood. So I should say, judging by that experience, that there will not be

y material change in the number of men needed unless the yards are abolished completely and all the stores and materials removed and abandoned.

PHILADELPHIA NAVY YARD.

Mr. KELLEY. Take the Philadelphia yard, where I notice that you have 302.

General LEJEUNE. That represents three groups of men: Men engaged in guarding the navy yard; men engaged in manning the fire department—the marines there constitute the entire fire department of the navy yard—and the men who have to be employed in doing the cooking, cleaning, and the clerical duty, and the painters and carpenters. This last group is called the barracks detachment. The present complement is a cut of 150 from the original complement. We had 450 men there originally and cut it down to 302.

Mr. KELLEY. Do you think if the yard were not used much next year that it would require that number?

General LEJEUNE. I do not think that we could make much of a use of it there.

Mr. KELLEY. Mr. Secretary, I suppose this would be one of the points where you would concentrate pretty heavily on storage, the storage of ships, etc.?

Secretary DENBY. Yes, sir.

Mr. KELLEY. And the storage of supplies?

General LEJEUNE. That navy yard is all open. It has only a wire fence, and it also has a very long water front.

Mr. KELLEY. It seems like a large number of guards.

Secretary DENBY. I do not know the extent of the territory to be covered.

Mr. KELLEY. It is a large place.

General LEJEUNE. But no matter whether active or not, it is quite obvious that the guard is necessary unless the yard is completely abandoned.

WASHINGTON NAVY YARD—MARINE BARRACKS.

Mr. KELLEY. How about the yard here in Washington—you have a marine barracks detachment?

General LEJEUNE. At the navy yard?

Mr. KELLEY. Yes, sir.

General LEJEUNE. There are two posts here in Washington, the navy yard and the marine barracks proper. The navy yard detachment guards the buildings and supplies, and so forth, at the navy yard, and the other detachment represents our correspondence school.

Mr. KELLEY. That is the Marine Corps institute?

General LEJEUNE. Yes, sir; which conducts the correspondence courses with the marines all over the world.

Mr. KELLEY. How long has that been in existence?

General LEJEUNE. It was organized about two years ago, and about a year and a half ago it was moved to Washington. While the men engaged in this work they are trained and drilled and are ready for any emergency.

Mr. DAVIS. How many men have you engaged in that particular work?

General LEJEUNE. All told, about 225. We have 5,000 students enrolled, and our school is based on the International Correspondence School in Scranton. We have the same textbooks and system, and the cost to the Government is very small. Exclusive of the wages of the officers and men engaged in it, it is less than \$4 per man enrolled. We give this course without any charge to the men, a course which if they took it from the International Correspondence School, would cost them from \$100 to \$200 each. We think the resulting benefit to the service makes it worth while to keep up the institute, especially if the men are available in case of an emergency.

Mr. DAVIS. How many are there at Washington?

General LEJEUNE. At the navy yard about 150 men.

Mr. DAVIS. I mean engaged in this correspondence work?

General LEJEUNE. Running the correspondence school, I think about 225.

Mr. DAVIS. In Washington?

General LEJEUNE. Yes, sir. We put them here because the barracks were available, and they were away from the activities of other posts. The institute has been of great benefit to the corps. One of the criticisms of the military service for many years has been the fact that we have taken boys in the Army, Navy, and Marine Corps that they have gone through their enlistments, and that they have received no actual educational advantages apart from what their duties required them to learn. This school gives any boy or man the opportunity to study. He is not compelled to study. He is not compelled to take the course, but we offer it to him gratis.

Mr. DAVIS. And most of them accept it?

General LEJEUNE. A great many. It has removed the sting of criticism. The parents are very much pleased. They write us letters about it. Quite a number now get their diplomas as graduates. We have had letters from men who have been discharged telling us that the course of study has enabled them to get better positions in civilian life than they otherwise could have secured. I am certain that it makes better soldiers. Unquestionably a man whose mind is trained is better than a man who is untrained, illiterate, and has no education.

Mr. DAVIS. You think a man educated both physically and mentally is a little superior to the man educated in only one line?

General LEJEUNE. Yes, sir; unquestionably. The old theory was that the best kind of a soldier was the man who did not know anything, but who blindly obeyed orders. That theory has entirely disappeared. I know, from personal experience, that the more a man's mind is trained, the more training he has, the better soldier he is.

Mr. KELLEY. You run the fire departments in all of the yards?

General LEJEUNE. Yes, sir.

GUARDS FOR FIRE DEPARTMENTS AT NAVY YARDS.

Mr. KELLEY. About what percentage of these boys in the Philadelphia yard are used in the fire department?

General LEJEUNE. There were 35 in the fire department according to the last report.

Mr. KELLEY. You do that at the request of the Bureau of Yards and Docks?

General LEJEUNE. It is done by the commandant of the yard. He has the fire engines, hook and ladder, and hose carts and the marines man them. That saves the Bureau of Yards and Docks the expense of doing it.

Mr. KELLEY. And that is true of all the yards?

General LEJEUNE. The marines form a part in the fire department in every yard, but there are different systems in vogue in every yard. In New York we had the fire apparatus at the barracks and the command turned out and went to a fire. In some yards they have a separate detail of men who do nothing else but stand by, like they do in a city fire department.

BOSTON NAVY YARD.

Mr. KELLEY. At the Boston yard, 125?

General LEJEUNE. That includes the men guarding the Boston Navy Yard and guarding places like Squantum, which forms a part of the Boston Navy Yard, where there are a great many stores accumulated.

Mr. KELLEY. You might possibly cut that a little next year?

General LEJEUNE. Not very many.

Secretary DENBY. What is the number at Squantum?

General LEJEUNE. About 15.

Mr. KELLEY. And 110 at the Boston yard?

General LEJEUNE. Yes, sir.

Secretary DENBY. At Squantum we have a lot of stores and only 15 men.

Mr. KELLEY. Of course, I can see, even if the yard is closed down, you will have to carry storage until you get cleaned up.

Secretary DENBY. And it is more important.

Mr. KELLEY. It is necessary to have it properly guarded. It is just a question of what is the right number.

General LEJEUNE. I am entirely in accord with bringing the number engaged in guard duty down, because that will give us more men for other purposes.

Mr. KELLEY. Please look into that very carefully as you go along?

General LEJEUNE. Yes, sir. We will not give the stations a man more than necessary. We always give them less than the commandant thinks is necessary.

CHARLESTON NAVY YARD.

Mr. KELLEY. Charleston, 150. That seems like a large number.

General LEJEUNE. They have several outside activities there. For instance, you will notice that at some of the stations we have a separate detachment for the naval hospital. In Charleston we do not. They have coal piers which they have to guard and a little prison where they have a detachment of about 20 men, and also other outlying activities which they have to protect.

PORTSMOUTH, N. H., NAVAL PRISON.

Mr. KELLEY. Portsmouth, N. H., Naval Prison, 152.

General LEJEUNE. There are from 800 to 900 prisoners. Comparatively few of the prisoners are in the prison; they are in wooden buildings that are outside the prison.

Mr. KELLEY. What has happened to that fine marble prison?

General LEJEUNE. They have about 250 in the cells inside the prison. The others are in temporary buildings which were built during the war. The prison, by the way, is in very fine condition.

Mr. KELLEY. Who runs the prison?

General LEJEUNE. A marine officer.

Mr. KELLEY. Who?

General LEJEUNE. Lieutenant Colonel South went there the 1st of last July. There has been improvement there; he has completely reorganized it.

Mr. KELLEY. Instead of the prison run by Mr. Osborne.

Secretary DENBY. You would not know the prison now.

General LEJEUNE. It is the cleanest place I ever saw in my life.

Mr. KELLEY. That remark has no reference to the time when Mr. Osborne ran it?

General LEJEUNE. I never saw it at that time.

Mr. KELLEY. Who did you say was in charge?

General LEJEUNE. Lieutenant Colonel South, who was the fleet marine officer of the Atlantic Fleet with Admiral Wilson, and when Admiral Wilson was detached, on Admiral Wilson's recommendation, Colonel South was ordered to take command of the prison.

Mr. KELLEY. Do they work in the yard?

General LEJEUNE. Yes; they work in the yard.

Mr. KELLEY. Performing useful labor?

General LEJEUNE. Yes, sir; but not in competition with civil labor. That is, they do no skilled work. They do outdoor work, and then they do a tremendous amount of work for themselves. They make clothing and shoes and repair shoes. Colonel South has effected a saving in the upkeep of the prison, in the equipment, shoes, gloves which they have to use in cold weather, that will amount this year to about \$55,000, by developing the work inside of the prison.

Mr. KELLEY. What is the average length of time that the boys are kept in prison?

General LEJEUNE. From six months up to several years. Where there are very long terms of imprisonment given to men who have committed crimes, they are sent, under the Secretary's orders, to the United States prisons at Atlanta and San Quentin.

Mr. KELLEY. These are mostly short-term prisoners?

General LEJEUNE. These are military prisoners who have committed military offenses.

Mr. KELLEY. What about the criminals?

General LEJEUNE. They are kept in cells. The men out of cells are all right. Colonel Smith has a system that when new prisoners come to the prison they are put in cells for a certain length of time, and then he releases them on probation and puts them in these temporary buildings; 100 men will live in a building, under conditions very similar to the conditions under which the enlisted men live in barracks, except that they are kept within the prison inclosure.

Mr. KELLEY. They are worked in groups of five?

General LEJEUNE. Yes, sir.

Mr. KELLEY. And there is a guard with every five?

General LEJEUNE. It depends on the class of work. If they are digging ditches or are working together, two or three guards will

with a large group of prisoners. If they send two or three men to do a job, they always have one sentinel. It varies according to the class of work.

Mr. KELLEY. You include in the navy-yard group the base at Parris Island?

General LEJEUNE. No, sir; that is carried as a separate group—listed under permanent detachments.

PERMANENT DETACHMENTS FOR TRAINING STATIONS, RECRUITING SERVICE, HEADQUARTERS, STAFF OFFICES, SUPPLY DEPOTS, ETC.

Mr. KELLEY. Under "Permanent detachments for training stations, recruiting service, headquarters, staff offices, supply depots, Marine Corps Institute, Quantico and San Diego, and marine band," the number is 2,469. Quantico should not be in there.

General LEJEUNE. Yes, sir.

EXPEDITIONARY FORCE EAST COAST—QUANTICO.

Mr. KELLEY. You have down below that "Expeditionary force, east coast, 3,078," which seems to be the number at Quantico in another place.

General LEJEUNE. Yes, sir. The permanent detachment at Quantico consists of the men who are doing such work as running the power plant, the water works, also the carpenters, painters, plumbers, electricians, and the force necessary in the supply depot and the commissary.

Mr. KELLEY. You have post permanent detachments 457?

General LEJEUNE. Yes, sir.

Mr. KELLEY. The Third Brigade and Fourth Brigades, 3,078?

General LEJEUNE. The whole force of the Third and Fourth Brigades is 3,078. They are the men we have available for an emergency.

Mr. KELLEY. The 3,078, what do you call them, the expeditionary force, east coast?

General LEJEUNE. Yes, sir.

Mr. KELLEY. In the item of post permanent detachment you have included Quantico?

General LEJEUNE. Yes, sir.

Mr. KELLEY. It should not be included?

General LEJEUNE. Yes, sir; 457.

PARRIS ISLAND.

Mr. KELLEY. You have 1,960 at Parris Island?

General LEJEUNE. That includes recruits under training.

Mr. KELLEY. One thousand two hundred and twenty recruits and post organization.

General LEJEUNE. The 710 is the permanent force there. That describes the men who run the post, just as the men do at Quantico, the prison detachment. We have another naval prison down there.

Mr. KELLEY. Is that why you have to have so many more than at Quantico?

General LEJEUNE. Yes, sir. That includes the detail of men who drill the recruits. We have a permanent detail of men who take over the recruits and carry them through their period of training of 10 or 12 weeks.

Mr. KELLEY. You only have 457 permanent detachment at Quantico with 3,078?

General LEJEUNE. The officers and noncommissioned officers who belong to the 3,078 train those men. At Parris Island we have drill sergeants and drill corporals who take the recruits when they come in. They are considered a part of the permanent detachment. We do not have to do that at Quantico. The noncommissioned officers are with the privates in the companies. We have to cut the permanent detachment down by about 500. We have very recently taken off 100.

FOREIGN SERVICE—SAN DOMINGO.

Mr. KELLEY. You have 5,921 in foreign service?

General LEJEUNE. They are the garrisons.

Mr. KELLEY. Are you going to bring any of those home this coming year?

General LEJEUNE. So far as I know, Mr. Kelley, it is the announced policy of the President of the United States to withdraw from Santo Domingo. That has been published and is well known, and so I am not violating any official confidence as to his policy or the policy of the administration. When that goes into effect, when that arrangement can be made, naturally when the Government comes home the marines will come home. In that event we could reduce the Marine Corps.

Mr. KELLEY. Two thousand two hundred and ninety-one?

General LEJEUNE. Yes, sir.

Mr. DAVIS. How many have you there now?

General LEJEUNE. Two thousand two hundred and ninety-one is the actual number.

HAITI.

Secretary DENBY. And about 1,700 in Haiti.

General LEJEUNE. One thousand six hundred and ninety-six, to be exact.

Mr. KELLEY. How about Haiti?

General LEJEUNE. In Haiti the force is about 1,700, and it may be possible to reduce that force one or two hundred. The force we have this year has an average strength of 21,000 men, and we are submitting estimates for 20,000 men. In order to conform to your wishes to bring our force down as much as we can, I should say that we could come down to 19,500 men, with the understanding and upon the express condition that if the force in San Domingo can be wholly withdrawn by administrative action, we will further reduce the Marine Corps to 18,000. In other words, in order to cut down to 19,500 men, we will have to reduce the force at Quantico and elsewhere. Then, if we withdraw the entire force from San Domingo during the coming year, by the Secretary's order or by the President's order, we will bring the number down to 18,000 men.

REENLISTMENTS—EXPIRATIONS OF ENLISTMENTS.

Mr. KELLEY. Do you think it is necessary to have 1,500 new recruits under training next year?

General LEJEUNE. During the coming year, based on our estimate of 20,000 men, we will have to enlist fully 12,000 men. That is due to the fact that two years ago we enlisted men for two years and secured a great many such enlistments. On the 1st of July, 1920, the corps was under 16,000 men, and we made a great drive for recruits during the following six months, and that brought us up to about 22,000 men. Now, those men were 2-year men. Those enlistments not only brought the corps up, but it made good the losses from discharges and other causes. Therefore during the 12 months following July 1, 1922, we will have to replace between twelve and thirteen thousand men.

Mr. KELLEY. What percentage of them will reenlist?

General LEJEUNE. The percentage runs along about 25 or 30 per cent.

Mr. KELLEY. Is it no more than that, or have you the exact figures?

General RICHARDS. I have only the figures for the number of men to be discharged during the fiscal year, that number being 12,406.

Mr. KELLEY. How many do you estimate will come back or reenlist?

General RICHARDS. Our estimates run about one man in four.

Mr. KELLEY. It is very much higher than that in the Navy. The reenlistments are about 60 per cent in the Navy.

General RICHARDS. I can not draw any comparison.

Mr. KELLEY. I do not see why you do not get more reenlistments.

General LEJEUNE. I think this year we will get about 2,500 reenlistments.

Mr. KELLEY. How many expirations of enlistment will you have?

General LEJEUNE. We are enlisting this fiscal year about 7,800 men.

General RICHARDS. We have estimated for honorable discharge gratuities, which are contingent upon reenlistment, for 2,233 men. That is an estimate based upon experience. Of course, sometimes there is a difference due to the economic condition of the country.

Mr. KELLEY. That represents the number actually discharged?

General RICHARDS. That represents the number of discharged men who we estimate will reenlist.

Mr. KELLEY. How many discharges are you estimating?

General RICHARDS. We expect to discharge 12,400 men.

General LEJEUNE. A good many of that 12,000 will go out upon medical survey and for other reasons. There are about 10,000 men to be discharged because of the expiration of enlistments. We always have a constant drain of men on account of the tropical service and discharges upon medical surveys, and, also, on account of men discharged by court-martial, men discharged as undesirable; a small number of men who desert, and a small number of men discharged on account of extreme financial dependency at their homes. Therefore, there is a constant flow of men out of the service, in addition to

the men who have completed their enlistments. Of course, the figure of 1,550 under training is subject to change, but it has been cut down. Our original figures last year were 2,500.

Mr. KELLEY. How long do you keep them down there?

General LEJEUNE. About 10 weeks.

Mr. KELLEY. You then bring them to Quantico?

General LEJEUNE. We then send them to Quantico, to Haiti, San Domingo, aboard ship, or wherever they are needed.

Mr. KELLEY. How long will they stay at Quantico?

General LEJEUNE. There is no definite fixed time of service then. That is our reservoir, where they come in and go out. Men come home from Haiti and San Domingo, and a great many of them are sent to Quantico.

Mr. KELLEY. A difference of 1,000 marines there would not affect the plans down there?

General LEJEUNE. Yes, sir.

Mr. KELLEY. How would it affect them?

General LEJEUNE. We have got to have an emergency force and mobile force in readiness.

Mr. KELLEY. It would not make much difference whether it was five, four, or three thousand.

Secretary DENBY. It is simply a question of amounts. For instance, at the Cabinet meeting when the Post Office Department matter came up, I was asked whether or not marines could be furnished, and I was able to say instantly that they could be furnished up to 4,000. As a matter of fact, 2,800 were taken. Then some time ago 400 were diverted for Central American service.

Mr. KELLEY. You have never had an emergency that would take them all?

Secretary DENBY. Not yet.

Mr. KELLEY. You have never had such an emergency in the past?

Secretary DENBY. Not that I know of.

General LEJEUNE. Before the World War there were a number of occasions when it was necessary to utilize every available marine for expeditionary duty. Of this 21,000 men—and this table is based on 21,000 men—you will notice that 3,078 are in that expeditionary force and it requires a big cut to bring the number down to 19,500.

Mr. KELLEY. You cut all of the stations, I imagine?

General LEJEUNE. You would have to cut down there too, and you took off another 1,000, they would all have to come from Quantico, or if you took off another 500, they would have to come from there.

Mr. KELLEY. Suppose you had 2,000 at Quantico, with all the other stations filled up?

General LEJEUNE. This figure of 19,500 is reached by taking 15 per cent off from that table.

Mr. KELLEY. Some would have to come out of Quantico in order to bring it down to 19,500?

Gen. LEJEUNE. Yes, sir; and we would have to revise all the tables. They are based on 21,000, and every further reduction that is made will necessitate another revision of the tables, of course.

NUMBER OF MARINES AT SAN DIEGO.

Mr. KELLEY. How many marines do you have at San Diego?

General LEJEUNE. We have built up a small west coast force there of about 800 men. We have not got them there yet. They will be called the west coast expeditionary force.

Mr. KELLEY. They do not appear in the table?

General LEJEUNE. Yes, sir.

Mr. KELLEY. There are 880 for that service?

General LEJEUNE. Yes, sir.

RESERVES.

Mr. KELLEY. That leaves about 4,000 in your pool or reserves?

General LEJEUNE. Yes, sir.

Mr. KELLEY. Do you not think that is a pretty large number?

General LEJEUNE. No, sir.

Mr. KELLEY. Is not that a pretty large number, with all the navy yards along the Pacific coast? It is protected pretty well, is it not?

General LEJEUNE. We have been getting those men together by cutting down at other places. We still have to get them together at San Diego.

Mr. KELLEY. What are these casual detachments?

General LEJEUNE. That is the number based upon actual experience estimated to be en route to and from the Philippines, the Far East, Haiti, San Domingo, and the number sick in hospitals, etc.

Mr. KELLEY. These are replacements?

General LEJEUNE. No, sir.

Mr. KELLEY. I thought you would be the last man to come up for replacements.

General LEJEUNE. They are not replacements, but they are men away from their stations.

Mr. KELLEY. They are coming and going?

General LEJEUNE. Yes, sir; I think that is a pretty small number: 880.

Mr. KELLEY. Of course we could cut them off.

General LEJEUNE. That would be 880 men taken out of the force, according to the experience of past years. That includes men sent home, men traveling back and forth, prisoners, and the sick in hospitals.

Mr. KELLEY. What do you do with the men who have been in the Post Office service?

General LEJEUNE. They come back to Quantico, and they are included in the list.

Mr. KELLEY. You did not have so many at Quantico when these men were in the Post Office service?

General LEJEUNE. No, sir; the force was greatly reduced.

Mr. KELLEY. That left about 1,000 down there?

General LEJEUNE. Yes, sir.

Mr. KELLEY. Of course, we would not want any replacements at Quantico or at Parris Island.

General LEJEUNE. No, sir. The men that are sick in hospitals or the men who come home sick from San Domingo and Haiti will stay with us only a month or a week until the doctors transfer them to the Veterans' Bureau. They are carried in the casual detachments.

NUMBER OF MEN ASKED FOR 1923.

Mr. KELLEY. What you are asking for is 19,000 men?

General LEJEUNE. 19,500. That means that if the force at San Domingo is withdrawn we will come down to 18,000.

Mr. KELLEY. Could we not make a little further allowance on account of San Domingo and Haiti and cut off these replacements?

General LEJEUNE. We took 1,500 off these tables.

Mr. KELLEY. You have 21,000?

General LEJEUNE. Yes, sir.

Mr. KELLEY. So you are taking off 1,500 there. Now, suppose we took off the 800 for replacements?

General LEJEUNE. We could not do that. We will have to have them.

Mr. KELLEY. Do you not think we could reduce them by that number? That would be a reduction of 2,300 on account of those two items. Could you not stand a shrinkage of 1,200 more?

General LEJEUNE. No, sir; unless you want to close up Quantico.

Mr. KELLEY. If you took these 1,500 out of Quantico, that would leave 1,500 down there?

General LEJEUNE. Yes, sir.

Mr. KELLEY. Suppose you shrunk at the navy yards by, say, 10 per cent, and then out there at Guam you could make a reduction.

General LEJEUNE. I do not know.

Secretary DENBY. We can not take the garrison out of there without the approval of the State Department.

General LEJEUNE. That is a part of the treaty now.

Secretary DENBY. It keeps fluctuating, of course.

Mr. KELLEY. Suppose you took out 5 or 10 per cent at the navy yards where they are not operating at full blast, and then brought home marines from Guam, Haiti, and other places. You could make up 1,200 there.

General LEJEUNE. The whole matter is in the hands of the committee, and we will do the best we can with what you give us; but I can not admit and do not admit that we can do the things the Marine Corps is supposed to do with less than 19,500 men, unless some of those duties are abolished, like the work in San Domingo. When we bring home the men from San Domingo we can come down to 18,000.

Mr. KELLEY. You would not probably replace anybody at Quantico or anybody at Parris Island, because they are in the student class, and if one got sick the place would be empty.

Secretary DENBY. You do not want any empty places in a military establishment.

Mr. KELLEY. You would not replace anybody in San Domingo or

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back from those places, and every transport brings them back. It includes men who are sick and the prisoners.

Mr. KELLEY. I know there are quite a number of men that are not available at the particular moment for service, because they are either going into service or coming away from service, or are sick.

General LEJEUNE. Yes, sir; or men who have deserted or are absent without leave, and are brought back by the police. They are carried as part of our strength, and will be a part of the corps preliminary to going to prison, but they are not marines at all, because they will never be out again with a rifle on their shoulders.

Mr. KELLEY. There are 3,500 at Quantico—

General LEJEUNE (interposing). We have not taken anybody at Quantico in the casuals detachment.

Mr. KELLEY. You figure on 8 per cent at Quantico and Paris Island—

General LEJEUNE (interposing). We have left those places out.

Mr. KELLEY. At Paris Island there are about 2,000?

General LEJEUNE. Yes, sir.

Mr. KELLEY. You will not need to replace those boys at navy yards?

General LEJEUNE. We have cut down their detachments. We have put them to the actual men needed for the duty. For instance, in New York the other day the fleet came in and landed a lot of sick at the hospital. Now, they manifestly should not be carried as a part of the strength of the New York Navy Yard.

Mr. KELLEY. Do you not think that in these detachments you could run short by the number that are not available? For instance, at Santo Domingo, if you had 2,000 or 2,200 and had to bring home 50 and sent 50 down there, that would make it run 2,040?

General LEJEUNE. We will cut down San Domingo according to these figures. You ought to see those detachments. The men are exposed there to bad climatic conditions and must suffer privations.

Mr. DAVIS. In the case of San Domingo I suppose the danger to the health of the men is greater than at almost any place?

General LEJEUNE. Yes, sir; there is a great deal of malaria down here. Taking the entire force in Haiti and San Domingo the figures show a large number of men unfit for duty. The small detachments are far in the interior, and it requires a large number of men to keep them supplied. You should see the difficulties we have in supplying those men who are staying up there in the valleys and in the mountains. For instance, in order to supply the men stationed at Hinche, we have to carry the stores from Port Au Prince by water to a town called Gonaives and then by rail to another little town, then by truck to some other place, and then by pack train to the camp. We have to unload and reload four or five times, and it takes many men to supply the troops in the interior.

Mr. DAVIS. Is it or is it not a fact that the marines, as a body, are engaged almost all the time, both in war and in peace?

General LEJEUNE. They are. We have made our estimate upon the basis of what will be required of the men during times of peace, and we have not made any estimate of what we would need in case of war. We are trying to base our estimates, and we have based our estimates, on the need of men in peace time.

Mr. DAVIS. Without saying anything about the busy life of the men in the Army or in the Navy, from the experience and observation

I have had, the Marine Corps is the busiest lot of men we have in the public service. In other words, the Marine Corps seems to be occupied practically all the time.

General LEJEUNE. We are looking for an opportunity to make ourselves useful.

Mr. DAVIS. They are doing something all the time.

General LEJEUNE. Yes, sir; you are right.

Mr. KELLEY. General, of course I realize that there is no logical percentage of the Marine Corps to the enlisted men of the Navy, as those duties that you mention are separate and apart entirely from the Navy, except as to those on ships, but we have been trying to run along a good many years upon the basis of one-fifth of the enlisted men of the Navy for the Marine Corps. However, with all this heavy drain on you from Central America and the extra duty of guarding navy yards, I suppose what would be the reasonable thing would be to put down the number that is necessary to perform those functions and give you whatever that is. At the same time, we would not want to strain that relationship too far. If you had 17,500 men, that would be about 25 per cent of what we are thinking of giving the Navy. I will say that in all my experience here I do not think I ever knew a military man who sought more to carry out the desire of Congress and succeeded at it any better than you have, and that counts very much in your favor at this time. Just what we will do, we will have to work out. I want that statement to appear in print.

General LEJEUNE. I appreciate that very much. I have tried to conform to the wishes of Congress, and will continue to do so.

PAY OF OFFICERS, ACTIVE AND RESERVE LIST.

Mr. KELLEY. We will take up the item for pay of officers, active and reserve list.

General RICHARDS. These estimates, Mr. Chairman, are for an average strength of the Marine Corps of 20,000 enlisted men.

Mr. KELLEY. The \$4,048,462.18 printed in the bill?

General RICHARDS. For the officers. There is a decrease in the item for pay of officers of \$337,733.83. That is explained by a decrease in the base pay and a reduction from last year's estimates of 3 brigadier generals, 1 colonel, 34 warrant officers, and of 100 second lieutenants.

Mr. KELLEY. For the pay of officers you are asking \$4,048,462.18.

General RICHARDS. That is right, sir.

Mr. KELLEY. Is that based on the existing law which will expire the 1st of July or the previous law?

General RICHARDS. It includes the bonus allowed by the existing law which, in fact, does expire on the 1st of July, but these calculations assume that that bonus, or something similar, will be provided to continue.

Mr. KELLEY. That will probably be done or something like that will probably be done, but it will not be done by the time we pass this bill, so I think we will have to refigure this on the basis of the old law. How much would that item be on the basis of the old law?

General RICHARDS. The amount necessary to continue the existing bonus for officers only is \$673,620. I have also figured the cost in pay for the so-called McKenzie bill.

Mr. KELLEY. We will not put that in, because we will handle that as a deficiency after it is passed. The only thing we would be authorized to do would be to carry the pay as we understand the law will be after the 1st of July, and then whatever increase there is will be carried later in the year in some other bill. How much did you say will come off of that?

General RICHARDS. \$673,620.

Mr. KELLEY. That makes \$3,374,842.18?

General RICHARDS. Yes, sir.

Mr. KELLEY. You are sure that is the amount you want for the officers' pay?

General RICHARDS. Yes; that is the exact figure, and I will file with my hearing the letter of explanation which contains that figure.

Mr. KELLEY. I understood you to say at the beginning that the \$4,048,462.18 was—

General RICHARDS (interposing). \$337,733.83 less than what was asked for last year or less than what is appropriated.

Mr. KELLEY. And that was due to the reasons you stated in your answer a few moments ago?

General RICHARDS. Yes. We are asking for less officers.

Mr. KELLEY. How many less officers are you asking for?

General RICHARDS. Three brigadier generals, 1 colonel, 34 warrant officers, and a shortage of 100 second lieutenants.

Mr. KELLEY. Less than you had last year?

General RICHARDS. Yes, sir.

General LEJEUNE. Less than we estimated for last year. We estimated for the full number of officers for this year. We are going to turn in \$200,000; we have already reported a surplus of \$200,000 that we are going to turn in.

Mr. KELLEY. This is for the exact number of officers you have?

General LEJEUNE. That we expect to have next year.

Mr. KELLEY. And is it the exact number you have now?

General LEJEUNE. No, sir. We have 30 additional officers whom we are pledged to appoint; they have passed examinations, and they were gathered together a year ago and have been under a course of instruction, so we have included them in next year's estimate.

Mr. KELLEY. I think it would be a good thing to put in the record a table showing the number of officers in each rank.

General RICHARDS. I have here, indexed, the full details of the arithmetical calculations by which these estimates were arrived at, and I would like to make those a part of the hearings, for they answer this as well as any other question that may arise.

Mr. KELLEY. All right.

General LEJEUNE. Those 30 young men will be nominated within a few days, as soon as they finish their physical examinations. It has been the practice for a number of years to appoint some officers to the Marine Corps from the Naval Academy of each graduating class.

Mr. KELLEY. You have the details making up the \$3,374,842.18?

General RICHARDS. Yes, sir.

Mr. KELLEY. And the amount of pay each group receives?

General RICHARDS. Yes, sir.

PERCENTAGE OF ACADEMY GRADUATES ASSIGNED TO MARINE CORPS.

Mr. BYRNES. What percentage of the Academy graduates are generally assigned to the Marine Corps?

General LEJEUNE. Up to this year the needs of the line of the Navy have been so great that we have not gotten very many. Beginning in 1915 they began to make some appointments from among the graduates of the Naval Academy, but prior to that time there had been no appointments for 16 years. To-day there are about 75 Naval Academy graduates among the officers of the Marine Corps, and we hope to get this year, to help the Naval Academy and help us, about 25. That is the number we would like to get.

NUMBER OF COMMISSIONED OFFICERS.

Mr. KELLEY. What is the total number of officers in the Marine Corps now?

General LEJEUNE. Nine hundred and forty-two.

General RICHARDS. These estimates include all commissioned officers, 58 marine gunners, 58 quartermaster clerks, and 42 pay clerks, making a total of 1,154.

General LEJEUNE. The 942 represents the actual commissioned officers on the active list of the Marine Corps to-day.

Mr. KELLEY. How many commissioned officers are you asking for next year?

General LEJEUNE. That is what we are asking for, a total of 1,154 commissioned and warrant officers.

Secretary DENBY. Do your 900 include commissioned and warrant officers?

General LEJEUNE. No, sir; the 942 includes the commissioned officers who are in the corps to-day.

Mr. KELLEY. And you are asking the same number for next year?

General LEJEUNE. We are going to appoint 30 more within a few days.

Mr. KELLEY. Will any go out?

General LEJEUNE. Only from the usual casualties.

Mr. KELLEY. Then the number will be 972?

General LEJEUNE. Yes; and then we expect to have about 25 graduates from the Naval Academy appointed.

NUMBER OF WARRANT OFFICERS AND PAY CLERKS.

Mr. KELLEY. How many warrant officers and pay clerks did you say you have?

General RICHARDS. One hundred and fifty-eight in all, sir.

Mr. KELLEY. And that is the number you are asking for next year?

General RICHARDS. Yes, sir.

Mr. KELLEY. And you have the same number this year?

General RICHARDS. What I am asking for, General Lejeune, are 996 commissioned officers and 158 warrant officers.

Mr. KELLEY. One hundred and fifty-eight warrant officers?

General RICHARDS. Yes, sir.

Mr. KELLEY. How many warrant officers did you have this year?

eral RICHARDS. I have not the details of the calculations for year with me, only a record of the differences between this year and last year.

KELLEY. Have you increased those officers?

General RICHARDS. No, sir; there are less this year than last year. The difference is this: Three brigadier generals, 1 colonel, 34 war-officers, and 100 second lieutenants. We have that number less than we estimated for last year.

KELLEY. What amount of this is for the reserve list?

General RICHARDS. For the reserve list there are 482 provisional of all ranks who draw \$12 a year; there is what is known as fleet reserve officers confirmed—one major, one captain, and second lieutenants. The total of the item that is in there for reserve amounts to \$8,263.18, a very small amount.

PAY OF OFFICERS ON RETIRED LIST.

The next item is for officers on the retired list. As it was made up, it gave the grades that were on the retired list when the estimate was made up last September, and the total cost is \$379,047.50. It includes a contingent fund of \$35,000, which was to allow for any changes in the retired list from the time it was made up until the year is closed.

KELLEY. Somebody might be retired because of wounds.

General RICHARDS. Wounds, disabilities, or voluntary retirements under the law. It also includes any increased pay that might be due to any retired officer assigned to active duty. The present practice is not to assign any retired officer to active duty. So the \$35,000 is always included, but of course if there are no changes it is not used.

KELLEY. If that were not included and some officers had to be added during the year for disabilities you would not have any money with which to pay them?

General RICHARDS. Possibly we would not have any money with which to pay them if the vacancies on the active list were filled.

KELLEY. I notice some changes in the text. You have three brigadier generals instead of four. Is that due to somebody's death?

General RICHARDS. Yes.

General LEJEUNE. General Pope died, for one.

KELLEY. The changes you have made in the text are made only to conform to the actual situation as it stands now?

General LEJEUNE. Yes, sir.

PAY OF ENLISTED MEN ON ACTIVE AND RESERVE LIST.

KELLEY. The next item is "For pay of enlisted men." You have to figure that over, will you not?

General RICHARDS. In order to make it clear I have here the items that were expended in 1921. Of course, that pay of enlisted men is made up of the active and reserve list, base pay, foreign-service pay, longevity pay, aviation pay, pay of court-martial prisoners, allowance on discharge, traveling expenses, interest on debts, cooks' and messmen's pay, etc.; all of the details are given. I have endeavored to illuminate the committee by analyzing

everything that was expended last year under those items and correspondingly what is in this estimate for the same items.

Mr. KELLEY. And you will put that in the record?

General RICHARDS. That will all go in the record; yes, sir.

Mr. KELLEY. That is based upon the increased pay contained in the 1920 act?

General RICHARDS. Yes, sir; in the case of the enlisted men added that increase right in with their regular pay, so I will not give you a separate figure as to the bonus for enlisted men.

Mr. KELLEY. When you get that figured out will you telephone the exact amount?

General RICHARDS. Yes, sir.

Mr. KELLEY. I suppose this is based on 20,000 men?

General RICHARDS. On 20,000 men, and I have also gone further and broken up this whole appropriation into its several items and put a figure there so that in the event the committee should desire to make a reduction they would know exactly how to apply that, that I will put it in the record.

Mr. KELLEY. That will show us how much of a reduction can be made per thousand men.

General RICHARDS. Yes; it is, roughly, about \$462,650.50 for 1,000 men, but it is not safe to go much further, because when you have more than 1,000 you have got to take care of overhead, and the same proposition will not follow.

Mr. DAVIS. Your overhead will be virtually the same, even if you cut it down 1,000.

General RICHARDS. That figure would be all right for 1,000, but it would be approximately all right for 2,000, but when it goes to 3,000 or 4,000 then there are other elements that enter into it which must be considered.

Mr. KELLEY. So we will have it here and to be used when we come to it, I wish you would send us the pay under this item for 19,000 men, 18,000 men, and 17,500 men on the basis of the old pay.

General RICHARDS. I will do that.

General LEJEUNE. I might interject here that last year when appropriated for 21,000 men we reduced the noncommissioned officers proportionately so as to get down to those figures. We did not make any promotions until the reduction was effected, and we have to-day the proper proportion of noncommissioned officers for 21,000 men.

Mr. KELLEY. Suppose you first reduce this \$11,568,968.84 to what it should be based on the old rate, and then, with that figure as a basis, determine what 19,000, 18,000, and 17,500 men will be.

General RICHARDS. Very well. There is in that pay of enlisted men \$137,306.32 for the reserve. These details are all shown in the sheet which I will file with the hearing.

General LEJEUNE. That includes the fleet reserve?

General RICHARDS. It includes the fleet reserve in classes 1-C, 1-D, and the enrolled fleet confirmed.

PAY ALLOWANCES FOR ENLISTED MEN ON RETIRED LIST.

The next item is for pay and allowances of enlisted men on retired list. There is \$227,046.40 for their pay. You will see that there is a list of the different grades, including a few eligibles

rement, and the bill gives this list. I wish to add that there is contingent fund for men who might be placed on the retired list these calculations, only the grades on the retired list at the time estimates were made up last September.

Mr. KELLEY. Does that embarrass you at all?

General RICHARDS. It does not.

Mr. KELLEY. The changes you have made in the text of the bill conform to the exact number that are on this list now?

General RICHARDS. Yes.

Mr. KELLEY. There is new language in this item, "one second der of band."

General RICHARDS. He has already been placed on the retired list.

Mr. KELLEY. I wonder why that is in italics.

General LEJEUNE. He just retired a few months ago.

Mr. KELLEY. And he is entitled under the law to be retired?

General LEJEUNE. Yes, sir; he finished his 30 years' service about months ago and went on the retired list.

Mr. KELLEY. The pay of the men on the retired list was not affected by the temporary increase in pay, was it?

General LEJEUNE. They all get their base pay on the retired list.

Mr. KELLEY. And not the increased rates?

General LEJEUNE. No; not the bonus.

General RICHARDS. There is no bonus for the retired men.

Mr. KELLEY. We increased the pay, but when they retire do they re on their base pay?

General RICHARDS. They retire on their regular rate of pay; the us is not carried to the retired list.

Secretary DENBY. But they are retired at three-quarters of the manent rate of pay they were getting at the date of retirement?

General RICHARDS. Yes, sir. I will answer that question definitely

I am quite satisfied that the bonus did not go to the retired list.

Mr. KELLEY. If that were true this amount would be smaller.

General RICHARDS. I will answer that question specifically, but I ink the bonus is only given in the case of the commissioned officers the retired list who are on active duty, and only while on active y. Neither the retired officer nor retired enlisted man receives er the law the so-called bonus of 1920.

General LEJEUNE. If it was in the form of increased pay, they ild get their increased pay; but if it was in the form of a bonus, v would not get it.

Mr. KELLEY. If that were done, it would have the effect of some 1 going on the retired list at one rate of pay and others at ther rate of pay, and I do not think that was the intention.

Secretary DENBY. I think the retired pay is based on the base pay.

General RICHARDS. The old pay, excluding bonus.

Mr. KELLEY. And not the 1920 pay?

General RICHARDS. No, sir; not the bonus.

Mr. KELLEY. Do you know on which these figures were based?

General RICHARDS. The 1920 act providing bonus does not enter o these figures for retired officers or retired enlisted men; not ll.

Mr. KELLEY. However, you had better look into it so as to make

General RICHARDS. That is my answer, and while I do not think I will have to modify it I will make the inquiry as you wish.

NOTE.—As to the pay of officers and enlisted men when retired, to answer the question specifically, upon inquiry I learn that section 13 of the approved May 18, 1920, specifically provides:

"That the increases provided in this act shall not enter into the computation of the retired pay of officers or enlisted men who may be retired prior July 1, 1922."

UNDRAWN CLOTHING.

Mr. KELLEY. The next item is undrawn clothing.

General RICHARDS. Yes; we have increased that, and the increase is to pay the savings that come to the enlisted force under the new system or, rather, the restoration of the old system.

General LEJEUNE. You see there are some men who overdraw their clothing allowance and that is taken out of their pay; then there are other men who are careful and take good care of their clothing and do not draw all of it; they get the benefit of that and the Government gets a benefit by a saving of \$1,332,000 in the actual amount of clothing issued to the men during the year.

Mr. KELLEY. Just tell me about that again.

General LEJEUNE. We make a money allotment instead of giving the men all the clothing they think they need, as we did during the war; at that time we issued clothing gratuitously as they needed it, which resulted in great extravagance and great waste; so, on January 1, 1921, we returned to the system which was in vogue prior to the World War. That system was based on making a money allowance for the clothing drawn each year by each man. We figured the requirements for a good man, the average man, and we gave him a money allowance. Now, all the clothing drawn by that man during the year is charged against his money allowance; if he exceeds his money allowance, the value of clothing issued to him is charged against his pay account, and the Government gets it back; if he does not exceed it, if he is very careful and saves his clothing, when he is discharged he gets paid for it. That is as old as the military service.

Mr. KELLEY. Because these men are so careful you must return \$250,000 to them in cash next year?

General LEJEUNE. Yes, sir; but we get back a saving of \$1,332,000.

Secretary DENBY. It is the difference between what it cost to give them the thing and give them the money to buy the thing. They are allowed barely enough to get through and in some instances they do save money. What they do save they get credit for it and are paid for it.

Mr. KELLEY. What is the clothing allowance per man?

General LEJEUNE. \$115 per annum. That is the first enlistment year, the first year of the man's first enlistment. They do not get it in the other years.

Mr. KELLEY. How much do they get in other years?

General McCRAWLEY. \$47.78 on second and succeeding years of enlistment.

Mr. KELLEY. The surplus that remains from year to year is carried over until the next enlistment, is it not?

General McCRAWLEY. It is only paid when the man is discharged, and then it is paid up their account.

General McCawley. Yes, sir.

Mr. KELLEY. How many men will be entitled to this undrawn clothing allowance during the coming year?

General RICHARDS. It was suspended on July 14, 1917. For the year ending June 30, 1917, there were 2,861 men discharged, with an average saving of \$37.44 for each man discharged. That does not mean that they all drew the average; we can not, however, give the details without considerable labor and research. There were some men who were overdrawn, who paid money to the Government at charge.

Mr. KELLEY. That does not go into the Treasury of the United States?

General RICHARDS. No, sir.

Mr. KELLEY. It goes to the credit of the Marine Corps?

General RICHARDS. Yes, sir.

Mr. KELLEY. How many do you estimate will be entitled to draw it year?

General RICHARDS. For the 12,406 discharged we allowed \$20 each as a credit for undrawn clothing.

Mr. KELLEY. That is just a fair guess?

General RICHARDS. Yes, sir. That gives \$248,000, and we put down \$100,000.

Secretary DENBY. Have you any estimate of the number of men who have been paid out of their own pay for clothing?

General RICHARDS. It is really difficult to give you that, Mr. Secretary, because it involves such detail. Suppose a man during his first year's enlistment does overdraw, it is immediately adjusted and charged to his account. If in the next year the excess of clothing he has so drawn and paid for enables him to save in subsequent years, in some cases it does, what is really being restored to him at discharge is pay that was withheld from him to satisfy that overdraft of clothing in the earlier days of his enlistment.

Secretary DENBY. You said that only honorably discharged men received whatever they had managed to save?

General RICHARDS. Any man, honorably or dishonorably discharged.

General McCawley. I made that mistake.

Mr. KELLEY. Your estimate on 12,406 expirations?

General RICHARDS. We estimated that because we have quite a number of short-term men enlisted for two years.

General LEJEUNE. Next year will be the big year for discharges, after that the number will come down. That will be the last hard year, because we have done away with the two-year enlistments. We run about 200 a month of men who are separated from the service for reasons other than expiration of enlistment. The 200 include medical surveys, summary court discharges, general court-martial charges, undesirable discharges, and desertions. It amounts to 100 or 2,500 men a year.

Mr. KELLEY. For what besides clothing is this money spent?

Secretary DENBY. We have to remember the nature of the man's work. A man doing yeoman duty would not wear out his clothing as quickly as a man on some other branch of the detachment, doing other kind of work. You average it up and it makes a very modest allowance.

Mr. KELLEY. It is what they allow in the Army?

General McCawley. Yes, sir.

Mr. KELLEY. How many?

General McCawley. I could tell you very easily by reference to the Army order on the subject. Our allowance table of clothing is based entirely on the Army allowance with some modifications. The service of the Marine Corps requires some slight variations. It is based generally on the Army table. Our allowance for clothing in 1921 was \$149.49; that is, for the first year of enlistment, and this year it is \$115.24, a reduction of over \$34.

Mr. KELLEY. Clothing must be nearly 50 per cent off?

General McCawley. It is going down, but I would not say it is that much. We have not bought very much clothing lately.

MILEAGE.

Mr. KELLEY. We will take up mileage.

General Richards. This estimate is \$15,000 less than the amount asked for last year.

Mr. KELLEY. How much did you use last year?

General Richards. We used last year \$98,667. That is very carefully watched.

Mr. KELLEY. How much have you used up to date of the 1922 appropriation?

General Richards. I can very easily give you the figure up to February 28—it is \$65,441.28.

Mr. KELLEY. You have not used half of the \$150,000?

General Richards. No, sir.

Mr. KELLEY. How much did you use of the 1921 appropriation?

General Richards. \$98,667.28.

Mr. KELLEY. Did you have fewer officers then or was the travel less?

General Richards. We had a few more officers then.

General Lejeune. No; about the same. We have had an annual appropriation of \$150,000 and we cut it down for next year to \$135,000. We have been turning in a surplus.

Mr. KELLEY. Possibly we might make it \$100,000?

General Lejeune. Make it \$125,000 and we will get along. We do not like to have it too close, because we might have an emergency. We like to have a little margin. That would give us a little to turn in at the end of the year. It is a very small appropriation. We watch it very carefully, Mr. Kelley.

Mr. KELLEY. What mileage do you get, the Army or Navy mileage?

General Lejeune. The Navy rate.

Mr. KELLEY. That is 8 cents?

General Lejeune. Yes, sir; except with this difference, that officers traveling with troops do not get mileage. In the Navy the officers do.

COMMUTATION OF QUARTERS.

Mr. KELLEY. It is, "Commuta-
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hether serving with or without troops, and includes also the commutation for the enlisted men as well, and for dependents of officers and some enlisted men. We have worked very carefully in connection with the building program of General McCawley. I do not think it can be safely reduced.

Mr. KELLEY. How much have you spent this year?

General RICHARDS. What was spent last year is set forth in paragraph 8 of my report. We have spent this year to February 28 approximately \$410,000.

Mr. KELLEY. Please tell me how much you have spent this year?

General RICHARDS. This figure, \$410,000 to February 28, is an estimate only. I do not think, though, it will exceed \$450,000; it is at the best a guess, for the reports are not yet in. It would be safe to say \$450,000.

Mr. KELLEY. Please put in the record of the appropriation for the current year how much you have spent for commutation of quarters up to February 28.

General RICHARDS. This entry at present will be \$450,000. I may add that for the rest of the year we will probably need \$225,000—total estimated \$675,000, out of the \$711,100 appropriated.

Mr. KELLEY. How much did you spend in 1921 for commutation of quarters?

General RICHARDS. At that time this particular appropriation was limited only to officers serving without troops and the expenditure was \$114,024.80; this figure alone is of no value for the present purposes.

Mr. KELLEY. You can put them together?

General RICHARDS. Yes, sir. We spent from the paymaster's appropriation \$114,024.80 and General McCawley will be able to supply the figure for officers serving with troops and for the enlisted force; a figure heretofore reported when the estimates were being written as \$461,180.32.

Mr. KELLEY. You can put them together?

General RICHARDS. Yes, sir.

Mr. KELLEY. Please put that in the record.

General RICHARDS. Yes, sir.

Mr. KELLEY. As I recollect, this was carried in two paragraphs heretofore?

General RICHARDS. Yes, sir; up to 1922.

Mr. KELLEY. And we combined them last year?

General RICHARDS. Yes, sir.

General McCawley. For 1921 the figures show \$467,302 expended from quartermasters' funds under this appropriation.

Mr. KELLEY. That makes \$581,326 and you are asking for \$670,000?

General RICHARDS. Yes, sir.

Mr. KELLEY. You probably will not need any more next year than 1921?

General McCawley. Commutation of quarters is purely guesswork. It depends entirely upon the number of officers put in that status by order of the major general commandant. Officers who are assigned duty with troops where there are no quarters get commutation automatically.

General RICHARDS. If an officer goes to sea his dependents commutation, and, moreover, officers and men above the grade sergeant that may be married get the allowance on field and on duty.

Mr. KELLEY. If you did not use but \$581,326 in 1921 you may need as much as \$670,000?

General LEJEUNE. I think that is a very close estimate. We have so many sets of quarters in the Marine Corps. The only real number for a guess is as to the number of officers aboard ship or in the field who have dependents. If an officer gets married he receives commutation of quarters while at sea or in the field.

Mr. KELLEY. Please put in the record the amount you spent up to the 1st of March?

General RICHARDS. Yes, sir.

NOTE.—Approximately \$450,000, or at the most \$675,000 for this year 1922.

PAY OF CIVIL FORCE.

Mr. KELLEY. The next item is, "Pay of civil force"?

General RICHARDS. For "Pay of civil force" we are asking for year \$146,611.28.

Mr. KELLEY. We will take that up by paragraphs. The first is office of the major general commandant?

General LEJEUNE. There is no change in that item.

General RICHARDS. There is no change unless it is in Gen. McCawley's department.

Mr. KELLEY. There is no change in the paragraph referring to office of the paymaster. There is no change in the office of the assistant and inspector. What about these changes in the office of quartermaster?

General McCawley. We are dropping out the technical engineer and the draftsman and asking for clerks in their places, with increase in the total sum. It is a rearrangement. We are saving \$100, as a matter of fact.

Mr. KELLEY. Have you the clerks now?

General McCawley. No, sir; we have not the civilian clerks we are asking for, but there are one warrant officer and two enlisted men performing their duties, and they could be released at a saving of money.

Mr. KELLEY. You want one more clerk at \$1,800 and two more clerks at \$1,200 each?

General McCawley. Yes, sir; in place of the technical engineer and the draftsman, whom we strike out. That saves \$100.

Mr. KELLEY. Have you the technical engineer and draftsman now?

General McCawley. No, sir; we let them go.

Mr. DAVIS. You say there will be a saving of \$100?

General McCawley. Yes, sir. We need the extra clerks to

1. Mr. KELLEY. How long has it been since you let the technical

General McCawley. About 10 years.

Mr. KELLEY. Of course, this would have the effect of adding one clerk at \$1,800 and two at \$1,200 each?

General McCawley. I have not appointed men in place of this engineer and draftsman because I thought we could do without them: we have not filled their places.

Mr. KELLEY. Have you any enlisted men in the Quartermaster's office?

General McCawley. Yes, sir.

Mr. KELLEY. Can not you get one or two more people like that?

General McCawley. General Lejeune has cut me down in the number of enlisted men to the absolute minimum. He can not spare any more men to be detailed as clerks.

Mr. KELLEY. We passed a resolution when we first started in this year, Mr. Secretary, relative to the increasing of pay or places.

Secretary DENBY. That knocks out the clerks that we were talking about the other day.

Mr. KELLEY. The general would not let you have the additional enlisted men?

General McCawley. No, sir.

General LEJEUNE. It is cheaper to have civilian clerks than to have enlisted men.

Mr. KELLEY. General McCawley has not had these two this year, and you say you have not had the clerks, either?

General McCawley. I have not the statutory clerks, but there is the warrant officer and two enlisted men I have referred to, who would be released if these civilian clerks were allowed.

Mr. KELLEY. You have had somebody doing the work?

General McCawley. Yes, sir; but they are going to take those three men away, and if they do I can not possibly get the work done. The work of the office is such it is impossible to release those men without filling their vacancies. If we continue to provide enlisted men, it will cost more than the civilian clerks asked for.

Mr. KELLEY. In the office of the assistant quartermaster at San Francisco there is no change?

General McCawley. No, sir.

Mr. KELLEY. In the office of the assistant quartermaster at Philadelphia there is no change?

General McCawley. No, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For temporary employes in offices at marine headquarters and at marine posts there is no change?

General LEJEUNE. No, sir. I should like to have that word "temporary" stricken out, because those people have been with us for several years.

Mr. KELLEY. You are not asking for any more temporary employees?

General LEJEUNE. No, sir; just to have the word "temporary" stricken out.

Mr. KELLEY. Was it not the intention when we put that in that after the war emergency was out of the way you would reduce this force again?

General LEJEUNE. I cut it down by relieving about 150 enlisted men.

Mr. KELLEY. You took out 150 enlisted men?

General LEJEUNE. Approximately that number.

ENLISTED MEN PERFORMING CLERICAL SERVICES, 1921-22.

Mr. KELLEY. General, how many enlisted men were there performing clerical duties in 1921?

General LEJEUNE. I do not know the exact figures.

Mr. KELLEY. Please put the exact number in the record.

General RICHARDS. Yes, sir.

Mr. KELLEY. And the actual number of enlisted men performing similar service now.

General RICHARDS. Yes, sir.

General LEJEUNE. We can give you the exact figures.

Mr. KELLEY. That explains why you want this word "temporary" stricken out. How many temporary employees were there in the headquarters?

General RICHARDS. I have a table here.

General LEJEUNE. Those employees have all been put under the civil service by an Executive order.

Mr. KELLEY. You would have reduced the clerks had you left the enlisted men in, but you elected to take out the enlisted men and leave the clerks in?

General LEJEUNE. Yes, sir.

Mr. KELLEY. You have taken out as many enlisted men as there were temporary clerks?

General LEJEUNE. More nearly twice as many.

Mr. KELLEY. This practice you regard as more economical than detailing enlisted men for this work?

General LEJEUNE. Yes, sir; economical in money and economical in men. We get the men with rifles in their hands instead of doing clerical work; we get a more permanent clerical force.

HIGHEST PAY OF ENLISTED MEN.

Mr. KELLEY. What is the highest pay that an enlisted man in the Marine Corps gets?

General LEJEUNE. It depends on the length of service.

Mr. KELLEY. I know, but the highest pay?

General RICHARDS. The highest is \$888. That is a sergeant major. There are other things that go with it. For instance, if he goes on foreign service he gets 20 per cent more.

Mr. KELLEY. If a man serves over and over, reenlists in the Marine Corps, what is the highest pay he can get?

General RICHARDS. There are so many things to consider.

Secretary DENBR. Do you mean compensation or pay?

Mr. KELLEY. I mean everything. I had an idea that it ran up pretty well.

General RICHARDS. The highest paid enlisted man of the Marine Corps is a sergeant major or quartermaster sergeant. Under present conditions is as follows [reading]:

month	\$74.00
do.	14.80
diem	.40

In addition to the above, he is entitled to:

Longevity pay.—Ten per cent of base pay for each five years' service, not to exceed 40 per cent.

Medals.—Eighty-three cents per month for each good conduct medal or bar; \$2 per month for each medal of honor or bar; \$2 per month for each distinguished service cross or bar; \$2 per month for each distinguished service medal or bar.

Foreign-shore service or sea pay.—Twenty per cent of base pay, plus permanent additions thereto; i. e., longevity pay, good conduct medals, medals of honor, distinguished service crosses or medals.

Marksmanship qualifications.—For qualification as—

Expert rifleman.....	per month.....	\$5
Sharpshooter.....	do.....	3
Marksmen.....	do.....	2

If detailed for duty in a staff office of the corps, he is paid a subsistence allowance of \$75 per month in lieu of quarters, heat, light, and rations in kind.

If detailed on recruiting duty, he is paid, in addition to regular pay, \$1.75 per diem for subsistence, \$15 per month for commutation of quarters, and an average of \$8.80 per month for commutation of heat and light.

General LEJEUNE. In a few cases it goes above \$100 per month.

MARINES ASSIGNED TO NAVY DEPARTMENT.

Mr. KELLEY. There are 19 men under the Chief of Naval Operations, and some of them get as high as \$1,943 a year. Why do you need 19 down there?

General LEJEUNE. Do you mean marines?

Mr. KELLEY. Yes.

General LEJEUNE. Those men are in the Navy Department as guards, and they live out in town. They are doing duty as watchmen and guards for the Navy Department.

Mr. KELLEY. How many men have you in the department?

General LEJEUNE. Those 19 men constitute the guard at the Navy Department.

Mr. KELLEY. Are there any others?

General LEJEUNE. The others are doing clerical duty.

Mr. KELLEY. How many marines have you assigned to the Navy Department?

General LEJEUNE. Doing clerical duty?

Mr. KELLEY. All kinds of duty.

General LEJEUNE. I can not tell you offhand. Those 19 men you refer to do guard duty. They take the place of watchmen in the building.

Mr. KELLEY. Does not the Superintendent of Buildings and Grounds furnish watchmen there?

General LEJEUNE. I would be glad to get those men back.

Mr. KELLEY. There are 19 men under the Chief of Naval Operations and 25 in the naval dispensary.

General LEJEUNE. They are enlisted men in the Navy.

Mr. KELLEY. Why does Admiral Coontz have so many down there?

General LEJEUNE. They have been there since I have been commandant.

Secretary DENBY. That is not a large number at all to be on guard, even if the building were guarded otherwise.

Mr. KELLEY. For the Chief of Naval Operations alone?

General LEJEUNE. They are carried under that department, but they are scattered all over the building. They are serving the General Board, the Bureau of Ordnance, and the whole Navy Building.

General McCawley. They are only mustered in his office.

Secretary Denby. It is like the men attached to the shore-based submarines.

General Lejeune. There is a necessity for having somebody there to guard the building, and they have not been able to get watchmen.

That is the number left from about 200 men that we had during the war.

PAY OF MARINE CORPS TO CONSTITUTE ONE FUND.

Mr. Kelley. General Richards, I call your attention to this language on page 150 of the bill which authorizes you to disburse these various items as one fund.

General Richards. Yes, sir; as one fund.

Mr. Kelley. You do not care to have that any longer, do you?

General Richards. That has always been so, and we strongly advise against any change.

Mr. Kelley. I think it is subject to a point of order if anybody made it. It would not hurt you if they made it, would it?

General Richards. Not for the retired officers, but it would hurt the retired enlisted men, perhaps. Let me explain. One year, I think in 1898, through inadvertence that clause was left out. At that time we had no contingent fund to pay the salaries of officers whose retirement was not anticipated, such as we now have, and the wording of the law was different there: it was just as we now word the law that covers pay of the retired enlisted men. In 1899 when we came to expend that appropriation the grades were different from what they were when we wrote the estimates, due to changes. Officers of different grades had been retired for disability, and as a result three old retired officers who had been retired were wholly prevented from drawing any pay whatever from the Government until that clause was restored to the bill, which was done by a joint resolution. Of course, that is now provided for, in so far as the officers are concerned, but it is not provided for in so far as the retired enlisted men are concerned, and if it should happen that the retired list for enlisted men should change in any wise and that clause is omitted a great injustice may follow in cases of retired enlisted men retired in the immediate future.

Mr. Kelley. It is the practice to keep within the amount specified, unless it is at some place where by operation of law you may be carried a little outside?

General Richards. We keep inside of all items of pay; particularly we keep inside on mileage. There we have discretion in moving officers around, and we always keep within the amount. However, it is not always possible to keep within the amount for commutation of quarters.

Mr. Kelley. I think they took this from the Army bill.

General Richards. We have it in both cases, i. e., not in Pay, Marine Corps, alone—that is, under maintenance, Quartermaster's Department, as well where it has produced great economies.

Mr. Kelley. You saved by putting in a year, it was better. It was better. We were sure.

secretary DENBY. I wish that could be done all the way down the

General LEJEUNE. These subheads together represent practically purpose, and you could lump the amount in one appropriation without mentioning any of these subheads. For instance, for pay of Navy you appropriate \$136,000,000 as one sum.

General RICHARDS. There are some papers here I wish to file and be part of the record of this hearing.

The statements and tables submitted by General Richards in explanation of the estimate for pay, Marine Corps, 1923, are as follows:)

Pay, civil force, Marine Corps, lump-sum appropriation \$100,000.

Employees.	Rate per annum.	Estimated, 1923.	Estimated, 1922.	Expended, 1921.	Office Major General Commandant and adjutant and inspector.	Office quartermaster.	Office paymaster.
visory clerks.....	\$2,000.00	2	2	2	1	1	
.....	1,800.00	5	5	5	2	3	
ssograph operators.....	1,800.00	1	1	1			1
raphers.....	1,600.00	3	3	3	2	1	
.....	1,500.00	8	8	7	3	1	4
.....	1,400.00	7	7	7	3	4	
.....	1,400.00	6	6	6		2	4
stenographers, and							
sts.....	1,300.00	13	13	13	5	8	
and typists.....	1,200.00	13	13	12	5	3	5
.....	1,100.00	9	9	8	5	4	
.....	14.00-5.52	5	5	5		5	
Total.....		72	72	69	26	32	14
.....		\$100,000	\$100,000	\$95,000			

¹ Per diem.

² Approximately.

Estimates, "Pay of the Marine Corps," 1923, including and excluding bonus.

	20,000 men.		19,500 men.		19,000 men.	
	With bonus.	Excluding bonus.	With bonus.	Excluding bonus.	With bonus.	Excluding bonus.
.....						
ting and reserve.....	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18	\$3,374,842.18
stired.....	379,047.50	379,047.50	379,047.50	379,047.50	379,047.50	379,047.50
ed men:						
ting and reserve.....	11,568,968.84	11,063,723.24	11,310,012.45	10,817,397.99	11,051,056.07	10,571,072.74
stired.....	227,046.40	227,046.40	227,046.40	227,046.40	227,046.40	227,046.40
wn clothing.....	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00
e.....	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
ntation of quarters	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00
.....	146,611.28	146,611.28	146,611.28	146,611.28	146,611.28	146,611.28
Total.....	17,415,136.20	16,236,270.60	17,156,179.81	15,989,945.35	16,897,223.43	15,743,620.10

*Estimates, "Pay of the Marine Corps," 1923, including and excluding
Continued.*

	18,500 men.		18,000 men.		17,500
	With bonus.	Excluding bonus.	With bonus.	Excluding bonus.	With bonus.
<i>Officers:</i>					
Acting and reserve.....	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18	\$3,374,842.18	\$4,048,462.18
Retired.....	379,047.50	379,047.50	379,047.50	379,047.50	379,047.50
<i>Enlisted men:</i>					
Acting and reserve.....	10,792,099.68	10,324,747.49	10,533,143.30	10,078,422.24	10,274,196.91
Retired.....	227,046.40	227,046.40	227,046.40	227,046.40	227,046.40
Undrawn clothing.....	250,000.00	250,000.00	250,000.00	250,000.00	250,000.00
Mileage.....	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
Commutation of quar- ters.....	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00
Civil force.....	146,611.28	146,611.28	146,611.28	146,611.28	146,611.28
Total.....	16,638,267.04	15,497,294.85	16,379,310.66	15,250,969.60	16,120,354.27

NOTE.—The reduction in mileage from \$135,000 to \$125,000 has been agreed to by the Major General.

Pay, Marine Corps, 1923.

DIFFERENCE BETWEEN AMOUNTS APPROPRIATED FOR 1922 (BY TER

Items.	Expended, 1921.	Appropri- ated, 1922.	Estimated, 1923.	Increase.
Pay, officers, active and reserve list:				
Base pay.....	\$2,801,441.03	\$2,816,730.00	\$2,586,500.00	
Longevity.....		591,690.00	579,170.00	
Bonus, act May 18, 1920.....	618,362.62	723,780.00	673,620.00	
Retainer pay—Officers Marine Corps Reserve.....	3,335.08	10,896.01	8,263.18	
Foreign shore service and sea pay.....	89,026.09	120,656.00	101,068.00	
Aviation.....	49,809.35	89,771.00	\$2,391.00	
Mounts and aides de camp, uniform gratuity, lost personal property, miscellaneous.....	21,842.72	32,550.00	17,450.00	
Total.....	3,583,816.89	4,386,196.01	4,048,462.18	
Pay, officers, retired list, base and longevity pay.....	321,031.38	353,761.25	379,017.50	\$25,256.25
Pay enlisted men, active and reserve list:				
Base pay.....	\$,333,192.38		\$,254,908.00	
20 per cent increase, act May 18, 1920.....	600,580.81		505,245.60	
Longevity increase.....			306,312.00	
Foreign shore service and sea pay.....	633,223.73		601,535.52	
Aviation.....	14,032.88		39,230.40	
Pay general court-martial prisoners.....			69,120.00	
Travel allowance on discharge.....	27,734.17		48,505.00	
Traveling expenses, civilian clerks.....			1,000.00	
Interest on deposits.....	12,304.41		15,000.00	
Cooks and messmen.....	74,058.89		86,964.00	
Qualification pay.....	315,803.01		493,128.00	
Honorable discharge gratuity.....	143,186.22		200,970.00	
Beneficiaries of deceased enlisted men.....	16,844.14		22,500.00	
Specialists' pay.....	107,478.56		200,256.00	
Retainer pay.....	202,397.58		137,306.32	
Miscellaneous.....	459,253.38		176,988.00	
Total.....	11,185,189.16	12,080,300.76	11,568,968.84	10,221.96
Pay enlisted men, retired list.....	210,155.38	210,822.60	227,046.40	225,000.00
Undrawn clothing.....	45,908.00	25,000.00	250,000.00	225,000.00
Mileage.....	98,667.28	150,000.00	135,000.00	
Commutation of quarters.....	\$ 114,024.80	711,100.00	670,000.00	
Pay, civil force, Marine Corps.....	\$ 118,311.12	146,711.28	146,611.28	

General court-martial prisoners are paid by supply officers of the Navy, and no report of ex-
is turned the Marine Corps.
Beasts on. mutation of quarters for officers on d
and on. -the mutation of quarters for
without
sops. Appropriations
with troops as well

Pay, Marine Corps, 1923—Continued.

DIFFERENCE BETWEEN AMOUNTS APPROPRIATED FOR 1922—Continued.

Items.	Expended, 1921.	Appropri- ated, 1922.	Estimated, 1923.	Increase.	Decrease.
RECAPITULATION.					
y. officers, active and reserve list.....	\$3,583,816.89	\$4,386,196.01	\$4,048,462.18	.....	\$337,733.83
y. officers, retired list.....	321,031.38	353,761.25	379,047.50	\$25,286.25	.....
y. enlisted men, active and reserve list.....	11,185,189.16	12,060,300.76	11,568,968.84	.....	491,331.92
y. enlisted men, retired list.....	210,155.38	210,822.60	227,046.40	16,223.80	.....
drawn clothing.....	45,908.00	25,000.00	250,000.00	225,000.00	.....
leage.....	98,667.28	150,000.00	135,000.00	.....	15,000.00
mmutation of quarters.....	114,024.80	711,100.00	670,000.00	.....	41,100.00
y, civil force, Marine Corps.....	118,311.12	146,711.28	146,611.28	.....	100.00
Total.....	15,677,104.01	18,043,891.90	17,425,136.20	266,510.05	885,265.75

Net decrease, \$618,755.70.

NOTE 1.—For explanation of increases and decreases see letter to major general commandant, E-32121, dated Sep. 30, 1921, par. 4.

NOTE 2.—Amount appropriated under "Pay, Marine Corps, 1921," \$15,032,779.48. Under a decision of the Comptroller of the Treasury, dated Apr. 19, 1921, authority was granted to transfer from "Maintenance, Quartermaster's Department, 1920," to "Pay, Marine Corps, 1921," such funds as were needed to cover any deficiency in "Pay, Marine Corps, 1921."

PROVISIONS, MARINE CORPS.

MR. KELLEY. General McCawley, you have this year an appropriation of \$4,141,450 for provisions for the Marine Corps, and for the next fiscal year you are asking a less amount.

General McCawley. The original estimates were \$4,169,200 under this item, and the department reduced them by \$100,000, leaving a total of \$4,069,200.

COST OF RATION.

MR. KELLEY. What do you figure the ration at?

General McCawley. At 50 cents. These estimates were made up last August, and I have gone over them three times recently for the purpose of revising them. The last revision brought the total to \$1,084,570, which represents a difference of \$84,630 from the original estimates. Therefore, I think it has been thoroughly figured out. Of course, the ration is something that is allowed by law or prescribed by law, and we have nothing to do but procure it, just as the law provides. It costs so much money, and we must pay for it. It is purely a matter of calculation.

MR. KELLEY. You get the Army ration?

General McCawley. No, sir; the Navy ration. The Army ration is one prescribed by the President, and he can change it whenever he wishes to. You gentlemen prescribe the Navy ration in its component parts, and we must furnish that. We get it as cheaply as we can, but we must procure it even if we incur a deficiency in doing so. The Marine Corps prices for food are as cheap as either the Army or Navy, and in some cases cheaper.

MR. KELLEY. I thought you had gone back to the Army ration.

General McCawley. No, sir.

Mr. KELLEY. Where did I get the idea that you were issuing Army ration?

General LEJEUNE. Congress put us on the Navy ration in 1911.

Mr. KELLEY. I thought you were using the Army ration.

General LEJEUNE. We had been prior to that.

Mr. KELLEY. When you went with the Army—

General LEJEUNE (interposing). When we serve with the Army we have the Army ration, but when we serve with the Navy, we have the Navy ration.

Mr. KELLEY. If you had the same food, it would not cost you more than it costs the Army?

General McCawley. No, sir; not if we had the Army ration.

Mr. KELLEY. The Army ration is 32 cents now.

General McCawley. I do not know what the actual cost of Army ration is, but I saw a statement in the paper the other day that the committee reporting the Army bill had allowed for Army ration 30 cents. Our ration to-day is costing 54 cents, or that is the average cost, and the Navy ration is costing a little more than that, or about 55 cents.

Mr. KELLEY. I do not see why that should be.

General McCawley. Our ration for troops in the United States is now costing us 47.38 cents on an average, though at Quantico cost is 43.23 cents, but the average should be considered to care for the higher-priced places. Outside the United States the average cost is 60.83 cents.

Mr. KELLEY. I can see how it might be 40 cents, because there always has been a difference of about 25 per cent, the Navy ration is about 25 per cent above the Army ration in cost.

General McCawley. That is, if the Army is getting its ration 32 cents, but do you know that?

Mr. KELLEY. That is what they say. Of course, food prices come down.

General McCawley. The last prices we got showed that food was going up.

Mr. KELLEY. I think there has been a little advance in some things.

General McCawley. The last prices we had showed an increase of 6 per cent on a few of the principal component parts of the ration. For instance, bacon, that being one of the principal components of the ration, in February cost 17.55 cents per pound, and in March cost 19.31 cents per pound; this was just a few days ago. Beef cost 12.15 cents per pound in February, and it was 12.75 cents per pound in March. Butter was 35.44 cents per pound in February, and now 37.15 cents per pound. Lard was 10.73 cents per pound in February, and it is 12.46 cents per pound now. Onions cost 8.87 cents per pound in February, and they cost 8.87 cents per pound now.

Mr. KELLEY. Were you brought up on a farm?

General McCawley. No, sir; but I have spent some time on a farm.

Mr. KELLEY. During the spring months of March and April, everything is high, and they are just beginning to start with the

uff. In the latter part of the season they run out, but that will not be the situation when you buy your food supplies next summer, including canned goods.

General McCawley. We always buy the pack in canned goods.

Mr. KELLEY. Butter and eggs are high during March, April, and May. The Secretary of the Navy knows how farming goes, and he knows that it is quite natural for the prices to run up somewhat now, but when you lay in your stock of supplies next summer the prices will have dropped away down. I wonder if it would not be all right to figure the ration at 40 cents?

Secretary DENBY. If you are figuring on the marines stationed at the permanent posts in the United States, the cost of the ration would be one thing, but when you send them abroad, the whole thing shifts.

General McCawley. At some places the ration costs over 60 cents.

Mr. KELLEY. You kept it down to 50 cents last year.

General McCawley. Do you know how that was accomplished? It was accomplished by dipping heavily into our reserves.

Mr. KELLEY. You might do that again to keep it from spoiling on our hands.

General McCawley. We have practically wiped it out.

Mr. KELLEY. Have you any left?

General McCawley. We will have about \$400,000 worth left on July 1 at best, which is about the normal amount we should always have, and it should not be called a reserve, as it is nothing but a necessary stock to carry us over and enable depots to fill requisitions.

Mr. KELLEY. You do not need much reserve in a big country like this, where you can be supplied readily.

General McCawley. It would be very uneconomical to buy canned stuff immediately as you consume it, as you should buy that when the pack is made up, and there is a large quantity of canned goods consumed.

Mr. KELLEY. How will we explain this great difference in the House? Here is the Army with troops on the Rhine, on the Isthmus of Panama, in the Philippines, and scattered all along the border posts and all over the United States with a ration allowance of 32 cents?

Secretary DENBY. They do not have to furnish certain things that we must furnish.

Mr. KELLEY. But we have allowed you 25 per cent increase over the Army ration to make up for that.

General McCawley. It will not make up for that on the basis of 32 cents.

NOTE.—I do not know whether you know, Mr. Chairman, that the Army ration figures f. o. b. point of purchase with no freight added, while our supplies are purchased f. o. b. destination freight being included in the cost price.

Mr. KELLEY. That is the history of this whole transaction. If you will study it, you will find that all along there has been a difference of about 25 per cent between the Army ration and the Navy ration. That was due to the fact that your ration prescribed so many ounces of this and so many ounces of that.

Secretary DENBY. And it was also because of the mobile character of the Navy.

Mr. KELLEY. And because of the mobile character of the Navy: Now, if we followed that practice, we would give you the A ration plus 25 per cent.

Secretary DENBY. That is accounted for theoretically by the facilities of transportation and the mobile character of the naval service as contrasted with the Army service, but that still leaves the matter without your having made any differential in favor of the Navy on account of the fact that the ration is prescribed.

Mr. KELLEY. If you take the Army ration for 1912 and the Navy ration for 1912, and put them down side by side, and then carry it right down through 1913, you will find that the difference has been about 25 per cent each year right along. Once in a while the difference has been 33½ per cent, but it has seldom been more than 25 per cent. Some years it has been less than 25 per cent, and sometimes only 20 per cent. It is surprising how closely together they run amount sometimes. The Navy ration often ran down to 30 cent

General McCawley. That was before the war.

Mr. KELLEY. Food prices are going back to where they were before the war.

General LEJEUNE. Before you establish a price for the ration, should put something in the law that would enable us to change components.

Mr. KELLEY. We are willing to give you that difference, of course. We are willing to feed the boys with the Navy ration, and we are willing to give you enough money to buy that ration, but last year the Navy insisted that it would take about 68 cents.

General McCawley. I think that is what we were paying at that time, and I said that we could come down to 60 cents, or that is my recollection. I predicted that the ration would cost 60 cents, but we have managed to reduce the average to 54½ cents.

Secretary DENBY. What did you do?

Mr. KELLEY. We put it at 50 cents.

General McCawley. You put it at 50 cents and gave us money for 47 cents.

Mr. KELLEY. You got along very well by using a little of the reserves.

General McCawley. We used \$800,000 of our \$1,200,000 war reserves. If we go on doing that, we will not have any reserves next year; in fact, by July 1 there will be no reserve.

Mr. KELLEY. The difficulty is this, that the Army bill provides 32 cents for the ration.

General McCawley. I have no doubt but that the Army has reserves that they are still working on. That is probably the reason why that cost is 32 cents.

Mr. KELLEY. That should be inquired into.

General McCawley. Our reserve is wiped out.

Mr. KELLEY. You have how much food reserve?

General McCawley. On the 1st of July we had \$400,000 worth of food supplies, which is just the amount we shall have to carry us along for two or three months.

Mr. KELLEY. I quite agree with General McCawley. I think we should establish a price for the ration in the present time, now being

the law that would enable the components of this ration to be changed by administrative action, as, if the law remains as at present, men are entitled each day to the components authorized by law, the Government is required to furnish those components, and the money appropriated is not sufficient a deficiency will ensue. If some authority is given for administrative action in reducing the amount of food issued daily—which, of course, would result in saving of money—then the law could be complied with, and the Government given the food that the money appropriated will buy, and no deficiency is likely to result.

I have no question whatever of being able to feed the Marine Corps on a 40-cent ration, but I am equally sure that it is not possible to provide a 40-cent ration which will be fully equal to the ration prescribed by law, though such ration would be fully satisfying to the men. I am as thoroughly convinced that, unless food prices are materially reduced, it will be impossible to procure a Navy ration in full for that amount of money; and if you insist that no deficiency shall occur in this appropriation, although the existing Statutes provide that such a deficiency may be made in assistance, then I would suggest the authorization for the reduction of the ration by administrative action as I have before recommended to.

RESERVE SUPPLIES ON HAND.

Mr. KELLEY. Will you put in the record a statement of your reserve as of this date, or as of the last available date, and then an estimate of how much you will have on hand on the 1st of July? General McCawley. I will do so. (The statement follows:)

Value of depot subsistence stores at the depots in Philadelphia, Pa., Hampton Roads, Va., and San Francisco, Calif., and at the Marine Barracks, Quantico, Va., Parris Island, S. C., and Mare Island, Calif., as follows:

as of July 1, 1921-----	\$1, 137, 370. 62
and March 1, 1922-----	610, 203. 53
Estimated value of supplies to be purchased March 1-June 30, 1922-----	400, 000. 00
Estimated value of supplies to be carried over July 1, 1922-----	393, 947. 00

Secretary DENBY. Do you intend to use that reserve after getting your appropriation?

General McCawley. We are still eating into our reserve, so that July 1 we will have less than \$400,000 left, which is no reserve at all.

Secretary DENBY. When you made up your figures for next year—

General McCawley (interposing). I estimate that we will need next year \$4,084,570, but I am willing to accept this figure in the interim in order not to ask for more money, and the figures are practically the same. I am sorry that any increase should appear to be necessary in the first item in our appropriation, because I am going to make reductions in nearly every other item as you go through.

Mr. KELLEY. This is based upon a cost of 54 cents?

General McCawley. No, sir; it is based upon a 50-cent ration, although the average cost of the ration to-day is 54.7 cents.

Mr. KELLEY. Is that computed on the basis of 20,000 men?

General McCawley. Yes, sir. If you reduce the number of men, of course, we reduce this estimate.

Mr. KELLEY. Did you deduct from the 20,000 men the number subsisted on board ship?

General McCawley. Yes, sir; we do not feed the men on board ship, and we do not estimate for them.

Mr. KELLEY. You estimate only for the number that you actually subsist?

General McCawley. There are 2,000 men on board ships that are subsisted by the Navy, and we do not estimate for them.

Mr. KELLEY. You estimate on the basis of 19,000 men?

General McCawley. Yes, sir; I have an analysis of that in the bill right in front of you, on page 151, which shows exactly how that \$4,069,000 is made up.

Mr. KELLEY. You say here, "rations in kind for 20,000 men."

General McCawley. No, sir; that is not based on 20,000 men, but on 16,874 men.

Mr. KELLEY. That is the way it appears in this table here.

General McCawley. This is my analysis which I put in the hearings every year. I always analyze the estimates. That is the statement on which this estimate was based. The most recent figures show that 17,164 men are receiving rations in kind. That includes the men serving abroad. It is not a fair way of estimating, because those men serving abroad are being provided with a ration which costs about 60 cents. Next year I will give a better analysis of this and put in those men separately in addition to those on shore in the United States.

Mr. KELLEY. You will please put this table in the record at this point.

General McCawley. I will do so.

Appropriation, "Maintenance Quartermaster's Department, Marine Corps, 1923," analysis of subhead "Provisions" (20,000 men).

Original analysis:

16,874 men--

Rations in kind, at 50 cents per day per man.....	\$3,079.50
Subsistence while traveling, at \$2.25 per day.....	30.00
Board and lodging of applicants, at \$2.25 per day.....	36.00
2,000 men aboard ship, subsisted by Navy.....	
510 men, commutation enlisted men on recruiting duty, at \$2.25 per day.....	418.00
400 men, commutation, clerks and messengers, staff officers, at \$1.50 per day.....	219.00
216 men, commutation, small detachments.....	122.80
Additional rations for noncommissioned officers (9021), at 40 cents per day per man (act approved May 18, 1920).....	140.00
Maintenance of ice machines.....	2.50
Ice for preservation of provisions, etc.....	80.00
Subsistence in hospitals.....	50.00

Total.....\$4,172.80

Reduced by direction of Navy Department.....100.00

Total.....\$4,072.80

1

\$4,172.80

100.00

\$4,072.80

analysis—Continued.

2,000 men aboard ship subsisted by Navy-----	
400 men, commutation enlisted men on recruiting duty at \$1.75 per day-----	\$255,500
436 men, commutation, clerks and messengers, staff offices, at \$1.50 per day-----	238,710
Commutation (small detachments)-----	122,840
Additional rations for noncommissioned officers (915) at 40 cents per day per man (act approved May 18, 1920)-----	133,590
Maintenance of ice machines-----	2,500
Ice for preservation of provisions, etc-----	80,000
Subsistence in hospitals-----	53,000
Total-----	4,084,570

Revised February 25, 1922.

Mr. KELLEY. Also please prepare a revised table based upon the number of men you would have to supply in case we reduced the number in the Marine Corps to 19,500, and, also, a table upon the basis of 17,500 men and upon the basis of 17,500 men?

General McCawley. I will do so.

Mr. KELLEY. We would like to have those three sets of figures.

General McCawley. I will supply that, and it will be based upon the same figures I have here.

Tables, appropriation "Maintenance, Quartermaster's Department, Marine Corps, 1923."

Subheads.	20,000 men.	19,500 men.	19,000 men.	18,000 men.	17,500 men.
Provisions-----	\$4,069,200	\$3,977,947	\$3,886,697	\$3,620,442	\$3,497,255
Engineering-----	1,118,771	1,100,000	1,060,000	1,000,000	950,000
Medical stores-----	884,600	850,000	840,000	825,000	815,000
Transportation and recruiting-----	450,000	400,000	375,000	350,000	350,000
Repairs of barracks-----	850,000	837,630	825,000	800,520	788,150
Transportation-----	350,000	350,000	350,000	350,000	350,000
Contingent-----	100,000	100,000	100,000	100,000	100,000
Total-----	2,000,000	1,975,000	1,925,000	1,850,000	1,800,000
Total-----	9,822,571	9,590,577	9,351,697	8,895,962	8,650,495

The Quartermaster told the committee that he possibly could get along with this amount.

Mr. KELLEY.—In the reductions of force provided for in the second and succeeding columns there can be no reduction made in forage and repairs of barracks, as they are in no way affected by the reduction of men. The only conditions can be said to apply almost equally to fuel and contingent, which are very slightly reduced. Provisions is a matter of arithmetical calculation, and transportation and recruiting is affected to the extent of the number of men who will not be enlisted and the cost for transporting that number. Engineering and military stores can be only slightly reduced, as they are down to a minimum now, and were for the fast diminishing reserve stock on hand the sums named would not be sufficient, as they in fact represent the amount of money necessary for the maintenance of the number of men provided for.

Mr. KELLEY. I wish you would also supply a statement showing the amount of food reserves that you have used from the 1st of July to the present time.

General McCawley. Wouldn't you rather have a statement of it that I will use during the year?

Mr. KELLEY. You may furnish both.

General McCawley. This appropriation we are dealing with now is not to take effect until next July.

Mr. KELLEY. I want to see how you are running along with your appropriations?

General McCawley. I will put it both ways—up to date and what it amounts up to the 1st of July.

Mr. KELLEY. Sometimes you can get along very much better in running up your mind if you know exactly what has happened, so if

you will give the amount of the reserve you have used to date and then estimate the amount you will use of your reserve for the balance of the year we can tell how much your ration is costing you this year.

General McCawley. Very well.

PURCHASE OF STAPLE PRODUCTS.

Mr. DAVIS. Do you buy your staple products—for instance, flour and meat—in large quantities?

General McCawley. Only what we regard as necessary for consumption at the places where we purchase them.

Mr. DAVIS. Do you buy them very often?

General McCawley. Oh, yes, sir; every month. We buy many of the things every month, particularly the fresh food or perishable stuff.

Mr. DAVIS. I am familiar with the usual periods that many of farm products are sold, and my experience is that there are certain months in the year when flour, which makes bread, and meat are higher than they really ought to be. Three or four months ago the farmer was selling his wheat and corn crop—I come from a wheat and corn producing country, and much of the wheat crop was sold by the farmer at about 90 cents a bushel, and, owing to conditions, he was obliged to, and did virtually, sell his entire crop.

Since that crop of wheat was disposed of, as far as the farmer was concerned, at about 90 cents a bushel, wheat has been going up until the other day it reached about \$1.40 or \$1.50. The farmer did not have much of any wheat to sell then; it was in the hands of the big elevator men, and now the price of bread has gone up in consequence of raise in price of wheat. I remember that corn was selling at about 25 cents a bushel, and after the farmer had sold it all, and it gets into the hands of other people it usually goes up. The same would be true about bacon. In a little while the farmer will be selling his hogs, from which are made bacon and other pork products, and as soon as the farmer disposes of all his hogs the retail price and the wholesale price of meat products will go up, and if you use considerable discretion, which I think you ought to use, you would take advantage of those times when you might buy flour cheaper than you can right now, because bread is now being made out of flour produced from \$1.40 wheat which the farmer sold for 90 cents. And you could buy bacon in four or five months from now at a good deal less, but as soon as the farmer gets rid of his wheat, corn, cattle, and hogs up go the products therefrom.

Mr. KELLEY. I think the general buys his staples like that just as you say.

General McCawley. We always take advantage of the market.

Mr. DAVIS. But you ought not to buy them every month.

General McCawley. We do not buy everything every month.

Mr. DAVIS. If you would buy your flour two or three months from now you would get it for less than you can get it now, and flour will keep for five or six months, and bacon will keep for five or six months; so, I think, you should take advantage of those conditions.

General McCawley. We only buy the perishable articles of the ration. I want to find out

the advantage of

eral McCawley. Always. This is about the method we purchase perishable articles of the ration, such as fresh and smoked fresh vegetables, and fresh fruits, are purchased locally by contract after solicitation of bids and award by items lowest satisfactory bidders. Canned fruits, canned vegetables, and canned beans, and other seasonable articles are purchased at depots in the season of greatest seasonable abundance, the quantity purchased estimated to be sufficient to last until the next season. Such articles as canned meats, flour, sugar, baking powder, and similar articles are purchased for stock at depots from time to time, as required, and as market conditions render advisable, the quantity procured usually covering six months' requirements, the amount of stock on hand being approximately three months' requirements.

DAVIS. In my opinion flour will cost you \$2 or \$3 a barrel now than it will when the August and September crop of wheat comes in; then wheat will go down and flour will also go down.

KELLEY. Last year you put in your tables a statement showing the length of time the various reserves would last a corps of the size we were then planning. Will you carry that out this year, please?

eral McCawley. I have it here.

KELLEY. On the basis of 17,500 men, 18,000 men, and 19,500 men?

eral McCawley. Yes, sir.

KELLEY. Wherever you put in a table about supplies, carry it out to show how long those supplies will last a corps of those different strengths.

eral McCawley. Very well.

of the principal articles of Marine Corps subsistence stores on hand and ordered as of December 31, 1921.

Article.	On hand and on order Dec. 31, 1921.	Estimated to last—		On hand Dec. 31, 1921.	Estimated to last—		Average 1,000 men.
	<i>Pounds.</i>	<i>Mo.</i>	<i>Dys.</i>	<i>Pounds.</i>	<i>Mo.</i>	<i>Dys.</i>	<i>Pounds.</i>
evaporated.....	13,111	1	..	13,111	1	..	630
dry.....	285,811	4	12	205,811	3	3	3,180
condensed.....	84,288	3	21	55,488	2	13	1,075
..	91,263	2	11	91,263	2	11	1,880
..	13,620	..	23	13,620	..	23	630
..	10,230	..	24	10,230	..	24	600
..	53,366	1	23	53,366	1	23	1,400
..	2,636,047	7	14	1,216,047	3	12	16,876
..	42,338	1	5	42,338	1	5	1,700
..	499,123	6	4	499,123	6	4	3,870
..	7,551	..	15	7,551	..	15	685
..	11,839	..	22	11,839	..	22	740
..	71,788	2	4	71,788	2	4	1,875
..	14,878	3	25	14,878	3	25	60
..	750,800	3	17	750,800	3	17	10,000
..	344,039	4	22	344,039	4	22	3,400

18.

above represents the stock on hand at Marine Corps depots in the United States and Marine Corps Barracks Island and Quantico. Reports from other posts have been discontinued on account of the receipt, which makes the information contained therein of little value. The above figures are on the basis of 20,000 men. On July 1 there will be no reserve left.

KELLEY. Will you please indicate the value of the reserves during this fiscal year?

General McCawley. Yes, sir.

Secretary DENBY. Based on cost price?

Mr. KELLEY. On the price of issue.

General McCawley. I will insert that in the record. (See p.—.)

CLOTHING.

Mr. KELLEY. We now come to clothing. I suppose you have plenty of clothing yet, have you not?

General McCawley. We have a pretty good stock, and I am going to offer to reduce that estimate by \$375,344, if that is acceptable to you, sir.

Mr. KELLEY. That leaves how much for this item?

General McCawley. \$1,118,771.

Mr. BYRNES. You are not going to buy any shirts, are you?

General McCawley. You must have been at General Dawes's meeting.

Mr. BYRNES. What did you buy those shirts for?

General McCawley. For the men to wear.

ARMY UNDERSHIRTS.

Mr. BYRNES. I read that the Marine Corps had purchased shirts when they had a supply on hand. What was the explanation of it?

General McCawley. Well, it was this: We needed some cotton summer undershirts of certain sizes which we did not have, and they were in demand in the corps, although we had quite a large stock of shirts of other sizes, but which were not available for the smaller men, so we advertised for the needed sizes and got a very reasonable bid based on our specification. Then we went to the clearance committee, which said the Army had a lot of shirts available for issue, and they would turn them over to us without cost if we wanted them, so I agreed to that proposition provided the shirts were of suitable material for our men to wear in the Tropics. We sent for a sample, and when the sample came it was found that instead of being a summer undershirt it was a winter cotton undershirt, that it weighed twice as much as our shirt did and was entirely of a different character from the shirts our men wear in the Tropics. I so stated this and again asked permission to make the purchase of our standard shirts, but was denied.

Mr. BYRNES. Was it an undershirt or a top shirt?

General McCawley. It was an undershirt. A gauze shirt was what we wanted and we got from the Army this very heavy, cumbersome, ribbed shirt which I am sure the men will not wear in the Tropics. It was entirely unsuitable, but we were forced to take it.

Mr. BYRNES. You were forced to take it?

General McCawley. Yes, sir.

Mr. BYRNES. Have you issued them to the men?

General McCawley. No; we have just received them.

Mr. BYRNES. Are you going to issue them to the men?

General McCawley. We will have to.

Mr. BYRNES. To wear in Santo Domingo?

General McCawley. Yes, sir; where?

Secretary DENBY. Mr. Byrnes, I would like to bring to the committee and let them see the regulation Marine Corps shirt and this thing that they put upon the Marine Corps. It is twice as heavy; is not only heavy but roughly made; no man would wear it in the tropics, and it is absolutely different from the Marine Corps shirt. However, it was not the difference in color, which was incorrectly stated, but it was the difference in weight, in composition, material, and everything else, and if those shirts are ever issued to the Marine Corps the saving of \$24,000 that was calculated to have been made through handling these 100,000 shirts to the Marine Corps will simply be made out of the pockets of the privates and noncommissioned officers of the Marine Corps, because the shirts that came to us could be issued to the men and they would not wear them, and they could simply go out and buy their own. They would make that saving for the Government, and that is all there is to it.

Mr. BYRNES. Are you going to issue them?

Secretary DENBY. I am not, and I hope to be able to get the order rescinded and the shirts returned where they belong.

General McCawley. The Marine Corps would not save a cent, because we have to take from our appropriations the cost of those shirts, which we probably can not use, and put it into this reserve which the Budget collects from various branches of the service, so that our appropriations are not saved \$24,000 by this transaction at all.

Mr. BYRNES. Then, what shirts will you issue to those in Santo Domingo?

General McCawley. If a man wanted a No. 2 shirt, which was one of the sizes called for by this order, he would have to take one of these heavy winter undershirts, but he would probably not wear it and would have to go out and buy a shirt, because that is all the Marine Corps can issue to him; he would have to go out and buy one at his own expense and probably pay a dollar for it instead of having one issued to him at 22 cents.

Mr. BYRNES. A man who wears another size would get a lighter shirt?

General McCawley. Yes, sir; he would be all right.

Mr. BYRNES. But the fellow who wore a No. 2 would be out of luck?

General McCawley. A man of your size would go out and pay a dollar for a shirt, because he would not wear the shirts we would issue to him, whereas a man of the size of Governor Kelley would wear a gauze shirt and be comfortable.

Secretary DENBY. Permit me to correct the record, if you will. I did not intend to issue these shirts, but that is a matter the Marine Corps controls. What I meant was that I still hope that the matter will be adjusted, and that the Marine Corps will not be compelled to issue these shirts.

Mr. KELLEY. They would not be justified in issuing a winter undershirt for tropic use.

Mr. BYRNES. Is your shirt a cotton shirt and the Army shirt a woolen shirt?

General McCawley. No; they are both cotton undershirts; but the Army undershirt is what I would term a winter undershirt; it weighs twice as much as our shirt.

SALARIES AND WAGES.

Mr. KELLEY. Where do you get this difference of \$300,000?

General McCawley. On page 152 you will see an analysis, beginning in the first column.

Mr. KELLEY. I have been looking at that for quite a spell.

General McCawley. The salaries amount to \$7,500, and they will be reduced to \$6,400; wages, \$553,778, reduced to \$374,972.

Mr. KELLEY. Just tell us about that.

General McCawley. Well, we are going to do with less people.

Mr. KELLEY. You will not have so many people at the factory?

General McCawley. No, sir.

Mr. KELLEY. You say the wages will be reduced to \$374,972?

UNIFORM CLOTHING MATERIAL, INCLUDING MADE-UP ARTICLES.

General McCawley. Yes, sir. The next item is uniform clothing material, including made-up articles; the original figure was \$995,837, but the department cut that by \$105,000, so that brings it down to \$890,837; I propose to further reduce it to \$708,399.

Mr. KELLEY. That is uniform clothing material?

General McCawley. Yes, sir; and also made-up articles.

Mr. KELLEY. What about your stocks? What have you in stock of clothing material?

General McCawley. Well, I can tell you all about that: we have quite a lot, and I am going to buy very little comparatively out of this. Which would you like to have first?

Mr. KELLEY. Well, what do you mean?

General McCawley. What we are going to buy or what we have on hand?

Mr. KELLEY. What you have on hand?

General McCawley. Do you want the complete list or the principal articles? There is a list of the principal articles.

Mr. KELLEY. You will put that in the record, will you?

General McCawley. Yes, sir.

Table of the principal articles of Marine Corps clothing on hand and on order as of December 31, 1921.

Article.	On hand and on order December 31, 1921.	Sufficient to meet requirements for issues for—	On hand December 31, 1921.	Sufficient to meet requirements for issues for—
		Months.		Months.
Belts, trousers.....	44, 152	6	44, 152	
Blankets, woolen.....	167, 746	19	167, 746	
Coats, summer, field.....	164, 474	16	164, 474	
Coats, winter, field.....	60, 716	9	60, 716	
Drawers, raincoat.....	282, 528	13	282, 528	
Drawers, woolen.....	347, 964	22	347, 964	
Gloves, woolen.....	166, 378	24	166, 378	
Hats, field.....	94, 226	10	94, 226	
Leggings.....	183, 974	15	183, 974	
O. r. coats.....	33, 266	12	33, 266	
Shoes, rubber.....	34, 884	14	34, 884	
Shoes, General.....	92, 498	7	92, 498	
Shoes, M.....	421, 716	15	421, 716	
Shoes, S.....	370, 658	24	370, 658	
Shoes, S.....	222, 004	13	222, 004	
Shoes, S.....			391, 420	
Shoes, S.....			228, 976	
Shoes, S.....			270, 846	
Shoes, S.....			100, 278	

Mr. KELLEY. This is the material out of which these articles are made?

General McCawley. Well, no; it is uniform clothing material, including made-up articles, but it includes everything which we require.

Mr. KELLEY. This is what you have on hand?

General McCawley. Yes; that was a survey as of the 31st of December.

Mr. KELLEY. Which one of these items are the shirts you have been talking about?

General McCawley. Cotton undershirts, about two-thirds of the way down, 421,000.

Mr. KELLEY. Four hundred and twenty-one thousand seven hundred and sixteen shirts.

General McCawley. Yes, sir.

Mr. KELLEY. Enough to last 15 months?

General McCawley. Yes.

Mr. KELLEY. On a corps strength of how many?

General McCawley. Twenty thousand men. However, it is rather unfair to say that the time limit sufficient to meet the requirements is 15 months, because that simply refers to the total number on hand; it does not consider the sizes at all.

Mr. KELLEY. There might be some sizes you would have to fill in?

General McCawley. Exactly. Recently we had to buy some of these 2 and 3 sizes of undershirts just referred to.

Mr. KELLEY. I remember that one year the sizes were all too large and the next year all too small.

General McCawley. During the war we enlisted a great many large men, and we were left with a good many large sizes after the war. Last year, Mr. Kelley, just on that one item of shirts, we issued 221,000 from the Philadelphia depot in 12 months. In maintaining a stock there should be on hand about three times the issues from the depot for the preceding year, as you must give consideration to the issues for the balance of the year in which the estimate is made, the next fiscal year and six months in the year following that to balance your stock and take care of your sizes.

Mr. KELLEY. I would not think you would have to do that; I should think you would have some reserve?

General McCawley. The reserve I am talking about now must be used between now and the 1st of July, before the money you are going to appropriate becomes available, and that money takes care of all of next year and should take care of about six months in the year following before the new appropriation becomes available and we can get our stock in. That has been our experience, and it shows we require about that much to keep our stock going.

Mr. KELLEY. This is the material you have made up?

General McCawley. Yes, sir.

Mr. KELLEY. How do you set out the material that is not made up, so we can add it to this?

General McCawley. I have a list of that, too.

Mr. KELLEY. Is that in such shape that you can put it in the record in the form of a table?

General McCawley. Yes, sir. I can put in the material on hand and how many articles it will make.

Mr. KELLEY. That will be fine; if it is not too big a job?
General McCawley. No; we can easily do that.

Articles of Marine Corps clothing and material to be purchased during year 1923.

	On hand.	Material.			Material required 1923.	
		On hand.	Due on contract.	Will make—	Total on hand and quantity material on hand and due on contract.	Quantity. Will make—
Belts, trouser.....	54,152				61,679	
Webbing.....		12,488	0	7,527		40,000 33,294
Buckles, friction.....	0	0	0		0	30,000 30,000
Tips, end.....	3,784	3,784	0	3,784	3,784	30,000 30,000
Lace, yellow silk.....		2,000	8,000			50,000
Chevyrons and stripes.....	5,624			2,856	8,480	14,285
Nainsook.....		90,371	77,501	109,846		200,000
Drawer, knee.....	321,172				431,018	128,571
Kersey, green, 16 ounces.....		172,014	50,964			60,000
Coats, S. W.....	80,716			61,982	142,699	16,020
Trousers, S. W.....	120,579			72,313	192,692	18,690
Flannel shirting.....		235,205	1,261			60,000
Shirts, flannel.....	112,499			118,233	230,732	30,000
Boots, rubber.....	16,770		0		16,770	2,000
Coats, rubber.....	14,964		0		14,964	3,000
Caps, dress.....	21,924		10,830		32,754	8,000
Gauntlets, horsehide.....	56		0		56	1,000
Hats, field.....	114,227		0		114,227	40,000
Ornaments, gilt, collar.....	238		17,284		17,522	15,000
Ornaments, gilt.....	34,416		0		34,416	10,000
Shoes, russet.....	113,561		50,000		163,561	75,000
Shirts, under cotton.....	161,716		100,000		261,716	100,000
Socks, woolen.....	418,062		0		418,062	60,000

NOTE. Consideration must be given to the large number of sizes required to be kept on hand fit the men, which necessitates a large stock.

Mr. KELLEY. You are evidently going to have quite a lot of left out of this appropriation this year, are you not?

General McCawley. I can not tell, Mr. Chairman. At the time we have a balance in that appropriation of about \$400,000 about four months to run.

Mr. KELLEY. We gave you \$1,125,000?

General McCawley. Yes, sir. We will probably have to buy things soon; in fact, I know we will.

Mr. KELLEY. In this table on page 152 I notice the employ about the same in the different years?

General McCawley. Yes.

SALARIES AND WAGES.

7 1 t
1 . we e

paid be so di
of them off.

KELLEY. Let me see whether I have this straight in my mind. The schedule below shows the number of people manufacturing these different articles?

General McCawley. Yes, sir.

KELLEY. And the schedule below shows the overhead salaries and the wages paid the employees?

General McCawley. Yes, sir.

KELLEY. The wages paid to practically the same number of men range from \$384,000 in 1921 to \$475,000 in 1922 and \$553,000 in 1923?

General McCawley. That was probably due to an increase in

KELLEY. That is what I am getting at. When was there any increase in wages?

General McCawley. I had nothing to do with that. That was authorized by the Navy Department and it was automatic with us; we had to follow the Navy Department's scale of wages.

General Lejeune. In August, 1920, there was an increase in

KELLEY. But in 1923 is your big increase, \$553,000?

General McCawley. That is the present estimate.

KELLEY. But it is for the same number of men?

Secretary Denby. The wages in the yards were decreased on September 15.

KELLEY. It is the same number of men all the way through, but the amount is increased by about \$75,000. Was there any increase in wages recently?

Secretary Denby. I do not recall it.

General Lejeune. There was some increase made.

KELLEY. Nobody has been increasing wages this year over last.

General McCawley. Everybody in the Philadelphia depot is on the scale of wages authorized by the Navy Department.

Secretary Denby. I will find out about that and see what the explanation is. I am very much surprised myself to know that there are no increases in wages authorized this year.

KELLEY. I do not think there could have been.

General McCawley. Those men could not get any more money than was authorized by the Navy Department's scale.

KELLEY. These figures may be wrong.

General McCawley. General Radford sent these figures and I got them from him.

KELLEY. That \$75,000 might have been an error in mathe-

General McCawley. Possibly.

Secretary Denby. I can not see anything else. It is the same number of men and the same number of days, but the question may come up whether there may have been more hours of work.

General McCawley. But you can be sure that none of those men were doing more than is authorized by the Navy Department's scale of

KELLEY. The Secretary makes a suggestion which may let us know if the number of days worked may have been much less. They

may work more steadily now than they did last year: you had a larger surplus last year and probably did not work the factor uniformly.

General McCawley. The reason for that increase is as the Secretary suggests and I remember it now. Colonel Radford was directed to submit his estimates for 1923 on a six-day-a-week basis, while this year we are working on a five-day-a-week basis.

REDUCTION IN ESTIMATE.

Mr. KELLEY. In any event, you are going to cut that to \$1,118,000.

General McCawley. Yes, sir.

Mr. KELLEY. Do you not think you could stand \$1,000,000 even that?

General McCawley. Whatever you give we will try to get along with, though I regard the figure as a minimum.

Mr. KELLEY. Well, we want you to have enough clothing, but there is quite a reserve stock in everything. What do you think about that, General? You are a good judge of this thing, and while I think that was your judgment, still \$118,000 would probably make a little difference.

General McCawley. Mr. Chairman, if you do away with this sum that you were talking about a little while ago it is going to make these figures exceedingly difficult, because they are made with a little margin: some are made very low with the idea that if we run into a deficiency we can take care of it by using some of the other appropriations.

Mr. KELLEY. We have been able to do that for you on the floor. The theory that the Marine Corps was a small corps and it was a more difficult to estimate accurately for a small institution than a large one, and maybe we can get away with it again.

General McCawley. We have never had enough money for the Marine Corps and at the present time we have a deficiency of \$17,000, and it is going to increase from now on until the 1st of July. If it were not for this lump-sum appropriation we would have to go to your committee for a deficiency in that appropriation, while having a balance in other appropriations, but as it is we can take care of it. As you say, for a very small corps, the sums of money are exceedingly small and it is very difficult to estimate accurately.

I should like very much to impress upon you the desire of the Marine Corps to meet you gentlemen in the effort for economy in every possible manner, and I have tried to show it to-day in the reductions I have offered, and General Lejeune, by his orders, has instilled into the corps a spirit of economy that I have never equaled; it is splendid and he should be accorded the highest praise, and in suggesting the reductions I am offering to-day I feel that the figures have been cut to the bone, and I beg that you will not cut still further and reach the marrow, because I fear deficiencies will result which I know it is your desire, and ours as well, to avoid. But there is a certain limit, beyond which none of us can go.

And it is pretty widely scattered?

McCawley. Very widely scattered.

FUEL—MARINE CORPS.

Mr. KELLEY. Now, we come to the fuel for the Marine Corps. Is it all coal.

General McCawley. No, sir; that is wood, electricity, oil, gasoline, etc.

General Lejeune. And commutation?

General McCawley. Commutation principally, yes; that is one of the big items. All expenses for fuel in kind for heating, power, and cooking purposes for barracks and quarters, including commutation for heat and light for officers and enlisted men, are payable out of this fund. Also gas, electric current, and kerosene for illuminating and cooking, and gasoline for power use. During the fiscal year 1920 \$1,095,690 was expended out of this appropriation, and for the fiscal year 1921 \$1,020,750.20. Last year you gave us \$590,000, and at the present time there is a deficiency of \$17,129 in that appropriation and it will increase, and we have four months to run. It is estimated that the expenses for fuel, etc., for 1922 will amount to about \$872,950.

Mr. Kelley. And that you expect to take out of other appropriations?

General McCawley. What we save in something else will have to make up that deficiency. We have never had enough money in fuel; we have begged pretty hard for it every year but have never been successful, although the figures show exactly what the fuel is costing us and we can not get away from them.

Mr. Byrnes. It is one of the things you must have.

General McCawley. Yes. It is not a thing like fuel in the Navy, where you can use administrative measures to conserve it by stopping vessels from steaming and things of that kind, but this is fuel which is required for the heating of public buildings, barracks and quarters, storehouses, and what not, where we have to use fuel, and in addition electricity for lighting as well as gasoline and commutation.

Mr. Kelley. I notice that you use a lot of gasoline and kerosene?

General McCawley. We use a limited amount. It has been reduced tremendously this year by the limitation put by Congress upon the use of motor-driven vehicles, but in Haiti and Santo Domingo, where our troops are operating in the field and at widely scattered stations, we are obliged to depend entirely upon motor transportation to get our supplies to the troops.

Mr. Kelley. What price are you figuring for gasoline?

General McCawley. We are buying it at different prices, and we are paying from 23 cents as a high to 16 cents as a low. At Quantico we are paying 17 cents and at Paris Island 16 cents.

Mr. Kelley. Why do you have to pay 23 cents? It would seem as though you are buying it at retail.

General McCawley. At Portsmouth, N. H., they pay 23.9 cents, but they buy a very small quantity there.

Mr. Kelley. How much of this item of \$884,000 is for gasoline? Most of it, I suppose.

General McCawley. Oh, no.

Mr. Kelley. \$159,400 is for gasoline and kerosene?

General McCawley. For instance, in the first six months of year we spent about \$62,000 for gasoline and \$21,672.08 for kerosene and fuel oil.

Mr. KELLEY. You are not paying 23 cents a gallon for gasoline are you?

General McCawley. No, sir; except at one station.

Mr. KELLEY. How much a gallon do you estimate for gasoline?

General McCawley. At Parris Island 16 cents and Quantico 16 cents. Those are the big stations. At Portsmouth, N. H., they have gasoline for only one Ford car and probably have to buy it at retail and the price of 23 cents at that place is cheap, as gasoline up there is very expensive. It does not pay us to send up to Portsmouth for our supply stations for that little car. We have saved tremendously on gasoline in the last year. We have saved about \$75,000.

Mr. KELLEY. That is because the price has gone down?

General McCawley. Yes, sir; and also on account of a limitation in its use.

Mr. KELLEY. It was 33 cents a gallon.

General McCawley. In the West Indies alone they used \$875 worth of gasoline in 1921. The gasoline cost us over \$203,000 last year. That has been cut tremendously.

Mr. KELLEY. But that is due to the fall in price?

General McCawley. Yes, sir; and the smaller consumption.

Mr. KELLEY. How many gallons of gasoline are you estimating for?

General McCawley. I estimate that we will use the first six months of this year 418,000 gallons. Last year we used 958,383 gallons.

Mr. KELLEY. How much kerosene do you estimate for, and at what price?

General McCawley. I have not the consumption of kerosene.

Mr. KELLEY. It is not very large?

General McCawley. No, sir.

Mr. KELLEY. The bulk of that item is gasoline?

General McCawley. Yes, sir.

Mr. KELLEY. How much coal are you asking for?

General McCawley. Anthracite coal, 12,816 tons, and bituminous coal, 32,457 tons.

Mr. KELLEY. And the price?

General McCawley. The price has gone up a little. For washed egg coal we are paying for 1922 \$7.55 a ton, an increase of 10 cents.

Mr. KELLEY. Delivered where?

General McCawley. That is the mine price and for delivery at all points on the eastern coast north of Norfolk, Va.—Pennsylvania anthracite coal. For chestnut coal we pay \$7.85, which is an increase of 10 cents; stove coal has increased 15 cents, up to \$7.90. The price of bituminous coal has come down. Last year it was \$4 to \$4.25, it is now from \$2.25 to \$3.50; more being purchased at the cheaper figure. These are all mine prices.

Mr. KELLEY. How many tons of coal do you ask for?

General McCawley. About 32,500 of bituminous and 12,800

Your estimate is based on the increased prices?



General McCawley. No, sir. We never had enough money for to carry us through. The price of gasoline has decreased about 50 per cent and the price of fuel oil about 40 per cent, and I have considered those facts in making this estimate.

r. KELLEY. Probably, if we give you the same amount you had year, you can get along pretty well, with the decrease?

General McCawley. I am sure we can not, though there is one thing, if this new pay bill for the services passes, \$250,000 can come out of the commutation item in this appropriation.

r. KELLEY. And not go in anywhere else?

General McCawley. The paymaster will have to take care of some-

r. KELLEY. We will not figure on that, because we do not know whether it will pass.

General McCawley. We are estimating this year that it will cost \$72,000 for fuel. It is just one of these appropriations where, if we do not get enough money, we are bound to create a deficiency. Buildings must be heated and the commutation allowances must be paid and we must have fires for cooking and gasoline, etc., to run stoves, as well as electricity for lighting.

MILITARY STORES, MARINE CORPS.

r. KELLEY. The next item is, "Military stores, Marine Corps." We have \$500,000 this year and you want the same amount next year?

General McCawley. I am suggesting a decrease in that appropriation of \$50,000.

r. KELLEY. Making it \$450,000?

General McCawley. Yes, sir.

r. KELLEY. This money is to be used to manufacture various articles for the Marine Corps?

General McCawley. Yes, sir; and from time to time for the purchase of articles that we can not manufacture.

r. KELLEY. You are getting along pretty well with the amount for this year?

General McCawley. Yes, sir. We will probably have a slight balance, but it will have to go to make up the deficiency in fuel.

r. KELLEY. You have estimated that you will not use but \$350,000 this year; but running your stock down you will have to have over \$100,000?

General McCawley. The estimate was put in last August. I do not know whether it will come out right or not.

r. KELLEY. How is it running since then, are you going to use more than \$350,000? This is one of the places you use to help out with fuel?

General McCawley. We will have to use all the balance to help with the fuel, because we need over \$280,000 for fuel.

r. KELLEY. If we take care of the fuel, \$350,000 will be enough? I think you have rather convinced me, personally at least, that it is a little deep on the fuel.

General McCawley. There is no question about that.

Mr. KELLEY. If we restore a little more for fuel, we can leave at \$350,000?

General McCawley. But we are using up our surplus supply. The amount estimated here does not represent the normal sum; we must have to take care of a corps of 20,000 men, and there will be a time—

Mr. KELLEY (interposing). Bye and bye you will have to have more money, and bye and bye we will have more money in the country to spend. Suppose we do increase your fuel appropriation reasonably and then leave this at \$350,000?

General McCawley. I will try to get along though I have given you figures made after careful estimating.

TRANSPORTATION AND RECRUITING, MARINE CORPS.

Mr. KELLEY. The next item is, "Transportation and recruiting Marine Corps."

General Lejeune. Next year we will have to enlist over 12,000 men and I have cut the estimate from \$1,000,000 to \$850,000. That is because we have been able to make so many economies in the recruiting service.

Mr. KELLEY. If we should make a little more cut than you have figured upon, then we could cut this item accordingly?

General Lejeune. I do not think it would be safe, unless you make a tremendous cut.

Mr. KELLEY. We will not make a tremendous cut.

General McCawley. I suggest reducing that \$100,000.

General Lejeune. Say \$850,000 for 20,000; that is what I am suggesting.

Mr. KELLEY. Please put in the record a statement as to what the sum would be on 19,500, 18,000, and 17,500.

General McCawley. Yes, sir. [Statement on p. 671.]

Mr. KELLEY. You will do that for all the various appropriations all the way through?

General McCawley. Yes, sir.

REPAIR OF BARRACKS, MARINE CORPS.

Mr. KELLEY. The next item is, "Repairs of barracks, Marine Corps."

General McCawley. I agree to a reduction there of \$100,000. According to our last report we had 1,348 temporary buildings, permanent buildings, or a total of 1,483 buildings to be maintained and repaired. Those buildings represent a value of \$5,331,000 for the temporary buildings and \$4,432,000 for the permanent buildings, or a total value of \$9,763,000. They have to be kept in repair. I will give you some idea as to how we use the appropriation. We have given up a great many rented buildings and are giving them as fast as we can. The Philadelphia depot is moving into buildings turned over to us by the Army, where we will save the rent after the 1st of July, except the ground rent, which we have to pay, which will be about \$22,000. I think we can give up \$100,000 there. You expect to pay \$27,000?

General McCawley. It will be less than \$27,000; only a little over 100.

General Lejeune. We took that over from the Army. They were paying ground rent.

General McCawley. The exact amount is \$23,658.

Mr. KELLEY. For rent and storage you estimate \$98,793 for this

What is the amount for next year?

General McCawley. \$72,721. Speaking of rent, General Lejeune entered into an arrangement with General Dawes to give up all old buildings so far as practicable and to move into Government buildings for the recruiting service.

Mr. KELLEY. Have you built anything under this temporary building clause?

General McCawley. Very little, sir.

Mr. KELLEY. How much?

General McCawley. \$1,300.

Mr. KELLEY. How much have you spent for repairs so far this year?

General McCawley. A little less than \$280,000, but we have got to make a good many repairs and do a lot of painting this spring, which will pretty nearly use up that appropriation.

Mr. KELLEY. You have spent about \$280,000 so far this year?

General McCawley. Yes, sir; but that is not representative of this year of the year, because we do a lot of our work in the spring.

FORAGE, MARINE CORPS.

Mr. KELLEY. The next item is forage for the animals.

General McCawley. I can not suggest any change in that appropriation. We have barely enough.

Mr. KELLEY. Have you about the same number of animals as last year?

General McCawley. Yes, sir. We will have a few less this year. There is rather a deficiency in that appropriation. It is in the same position as fuel, but we are trying to get along. The animals have to be fed. Fortunately this year the price of all horse food has been low, but I do not think it will be next year. It is abnormally low and it must go higher. While we reduced the number of animals, I do not think the appropriation could safely be cut.

Mr. KELLEY. How many animals have you?

General McCawley. Eight hundred and seventeen.

Mr. KELLEY. That is about the same number you had last year?

General McCawley. Yes, sir.

Mr. KELLEY. You think food will not be lower?

General McCawley. The reports I have from our buyers show that the price is going to be higher next year.

Mr. KELLEY. Have you quite a stock?

General McCawley. No, sir; we do not keep any stock on hand.

CONTINGENT, MARINE CORPS.

Mr. KELLEY. The next item is, "Contingent, Marine Corps"?

General McCawley. I offer to give you back out of the estimate \$285, over half a million dollars, making the appropriation an \$2,000,000.

Mr. KELLEY. The same as last year?

General McCawley. Yes, sir.

Mr. KELLEY. This is a long list of supplies, stationery, and everything like that?

General McCawley. Everything.

Mr. KELLEY. Of course, this stuff is all cheaper than it was last year?

General McCawley. But this is an appropriation in which we have no reserve at all. It is day to day, the maintenance appropriation. A glance at its wording will show the multitude of things charged to it.

Mr. BYRNES. How does your account stand of recent date? Do you think you will get through this fiscal year on the appropriation that you have?

General McCawley. I hope so; but I do not know. We are going to try to, but there will be no balance left. I can assure you of one thing, you will not have a deficiency in the quartermaster's appropriations.

On page 159, in line 4, the three words "during the war" at the end of the line, I think should come out. They seem to be superfluous.

Mr. KELLEY. You want to pay the funeral expenses of retired officers on active duty?

General McCawley. Yes, sir.

General Lejeune. We have three on active duty now.

Mr. KELLEY. The \$2,000,000 suggested is on the basis of 20,000 men—the same?

General McCawley. Yes, sir.

Mr. KELLEY. You will put in any further reduction that can be made with a lesser number?

General McCawley. Yes, sir.

Mr. KELLEY. What is this new item at the top of page 162?

General McCawley. I do not know whether you will deal with that or not. I have the explanation of it. It is just a bookkeeping transaction with the Treasury Department to adjust the accounts of that officer, Major Pratt.

Mr. KELLEY. Is there any money involved?

General McCawley. No, sir. He sent an automobile to be repaired on a price given by the company. When they got it there, after taking it apart, they found two or three little parts that had to be renewed, which cost \$43.95—more than the amount stated in the bill. That could not have been ascertained until the machine was taken apart and the work had to be done. It is just to adjust the accounts of this officer held up in the Treasury.

MARINE BARRACKS, SAN DIEGO, CALIF.

FOR FURTHER DEVELOPMENT OF BASE, PURCHASE OF LAND, ETC.

Mr. KELLEY. General, on page 120 there is an item, "Toward the development of the Marine Corps building not to exceed \$100 for the purchase of land," at San Diego, Calif.

I can give you a little of the history of that. Last summer when we were making out these estimates I got the itemized list from the civil engineer at San Diego and our commanding officer out there, showing each building and each item of public works and the estimated cost thereof. It totaled somewhere between \$2,500,000 and \$3,000,000; I have forgotten the exact amount. It involved the original plan which had been approved by the department during the war or before the war and had been submitted to the committee and which the committee had given its informal approval. General McCawley and I went over the items, and, realizing that we could not have all the buildings and ought not to have them, under existing conditions, and we cut out all except what could be completed for \$500,000.

Mr. KELLEY. This amount will finish up the job?

General LEJEUNE. Yes, sir.

Mr. KELLEY. What about the purchase of land?

General LEJEUNE. There is a little tongue of land that comes in here that [indicating] and affects some of the buildings—it comes right out in the place where we want to locate a building. Here [indicating] is the regular reservation and this little tongue of land comes down like that [indicating]. It is only an acre or two. It cuts right into our grounds. I do not know why it was not bought originally. The \$500,000 will buy that little tract of land in addition completing the construction of the necessary buildings.

TUESDAY, MARCH 21, 1922.

BUREAU OF NAVIGATION.

STATEMENTS OF CAPT. PHILIP WILLIAMS, ASSISTANT CHIEF BUREAU OF NAVIGATION; CAPT. W. D. MACDOUGALL, SUPERINTENDENT NAVAL OBSERVATORY; COMMANDER M. S. BROWN, AND MR. EDWARD HENKEL.

TRANSPORTATION AND RECRUITING.

Mr. KELLEY. We have with us this morning Captain Williams, of the Bureau of Navigation. The first item under the Bureau of Navigation is transportation and recruiting. How much are you asking for transportation and recruiting for 1923?

Captain WILLIAMS. For 65,000 men?

Mr. KELLEY. Yes.

Captain WILLIAMS. The modified estimate, the best I can submit at the present time, is \$5,218,175.54. That item is made up as follows:

Item 1. For travel allowance of enlisted men discharged at expiration of enlistment. \$1,504,800. In explanation—

Mr. KELLEY (interposing). Suppose you give the entire list and then we can start at the top and consider each one separately. Then the list will appear together, with the total.

Captain WILLIAMS. Item 2. For travel allowance of men given early discharge by reason of reducing the force, \$1,065,900.

Item 3. For transportation of enlisted men and apprentice seamen, and applicants for enlistment at home and abroad, with subsistence and transfers en route, or cash in lieu thereof, \$1,503,600.

Item 4. Same title as item 3, and should be grouped in same sub-head in appropriation, \$471,020.

Item 5. Transportation to their homes, if residents of the United States, of enlisted men and apprentice seamen discharged by medical survey, with subsistence and transfers, en route, or cash in lieu thereof, \$5,461.17.

Item 6. Transportation of sick and insane enlisted men and apprentice seamen to hospital, with subsistence and transfers en route, or cash in lieu thereof, \$40,918.87.

Item 7. Transportation of enlisted men of the Naval Reserve Force to and from duty, with subsistence and transfers en route, or cash in lieu thereof, \$300,000.

Item 8. Transportation of civilian officers and crews of naval auxiliaries, \$500.

Item 9. Apprehension and delivery of deserters and stragglers, and for railway guides and other expenses incident to transportation \$3,000.

Item 10. Expenses of recruiting for the naval service, \$105,820.

Item 11. Rent of rendezvous and expenses of maintaining the same, \$131,033.02.

Item 12. Advertising for and obtaining men and apprentice seamen, \$2,000.

Item 13. Actual and necessary expenses in lieu of mileage to officers on duty with traveling and recruiting parties, \$2,000.

Item 14. Transportation of dependents of enlisted men, \$82,122.48.

A total of \$5,218,175.54.

TRAVEL ALLOWANCE OF ENLISTED MEN DISCHARGED AT EXPIRATION OF ENLISTMENT.

Mr. KELLEY. Now give us an analysis of item No. 1, for travel allowance of enlisted men discharged at expiration of enlistment.

Captain WILLIAMS. There will normally be 41,000 discharges by expiration of enlistment in 1923. As explained in item 2, 17,000 of these will be given early discharges on or about July 1, 1922, in order to reduce the Navy to 65,000, the total allowed; the remainder, 41,000, minus 17,000, equals 24,000 discharges by expiration of enlistment. These men must be returned to their homes or places of enlistment at a rate of 5 cents a mile, the average cost per man being \$62.70. The total cost of this item is 24,000 times \$62.70, or \$1,504,800. The figure \$62.70, the average cost per man, is obtained as follows: For the fiscal year ending June 30, 1921, Supplies and Accounts reports that the cash mileage amounted to \$2,619,508.51; we discharged during that time 41,792 men who received this mileage; therefore the average cost is \$62.68 per man. During the fiscal year ending June 30, 1920, that is, the year previous, Supplies and Accounts reported that the cash mileage amounted to \$4,373,487.47; we discharged during that time 114,522 men, who received this mileage; therefore the average cost during that year was \$38.12 per man.

Mr. KELLEY. Before you take up item 2, the better way would be to exhaust each item as we go along. You feel that there was

o unusual conditions this last year which would not be repeated
e coming year to bring that up from \$38 to \$63, speaking in round
umbers?

Captain WILLIAMS. I am estimating on \$63; it is a hard estimate
o make but, in my opinion, the differences which caused that excess
f \$63 over \$38 still exist.

Mr. KELLEY. To what do you attribute that increase, principally?

Captain WILLIAMS. I attribute it principally to the fact that the
eet has been divided. The fleet, speaking approximately, went to
e west coast in the fall of 1919; therefore, that element did not
arry its full weight in the average which is expressed in the \$38
er man, but it begins to show its full force during the fiscal year
921, and I see no reason at the present time, unless conditions are
adically changed, why we should take anything but the last aver-
ge, that is, \$62 or \$63, in round numbers.

Mr. BYRNES. What is the explanation? The fact that the men
aveled a greater distance from the Pacific coast or their enlist-
ents expired there?

Captain WILLIAMS. We have made a very minute study of the
atter and I may summarize it by saying that the vast majority
f men who are enlisted come from the east coast; many of them
ave to be sent to the west coast and that brings the average of
ransportation up as long as the fleet is divided.

Mr. BYRNES. If that be true, you have really increased the num-
er of ships on the Pacific coast over and above what they were in
he year ending June 30, 1921, have you not? Have you not more
hips on the Pacific coast to-day than you had June 30, 1921?

Captain WILLIAMS. Yes, sir; I do not know about more in num-
er but more men.

Mr. BYRNES. Have you more men?

Captain WILLIAMS. I think we have; yes. Therefore, the aver-
ge would tend more to go up than it would to come down.

Mr. BYRNES. If you base it on the fact that the fleet is on the
acific coast and you now have more ships on the Pacific coast than
ou had in the year ending June 30, 1921, I do not see how you can
ope for much of a change.

Captain WILLIAMS. We can not hope for any decrease, and our
est figure is the average for 1921.

Mr. BYRNES. And that is the real explanation in your mind?

Captain WILLIAMS. In my mind that is the explanation, at least,
he greater part of the explanation; there may be others of a minor
haracter but they would, to a certain extent, be more subject to
ispute, and I am not prepared to say whether that is the whole
ause.

Mr. DAVIS. Has the cost of transportation increased?

Captain WILLIAMS. I think it has.

Mr. DAVIS. You said 5 cents per mile; has that been the estab-
ished rate?

Captain WILLIAMS. That is law.

Mr. DAVIS. And you think otherwise than that the cost of trans-
ortation has been increased?

Captain WILLIAMS. I am inclined to think it has, but I would not
ase my opinion entirely on that; I prefer to base my opinion on the
reater length of travel.

Mr. OLIVER. I understand you have a mileage allowance of 5 cents! Captain WILLIAMS. This is for enlisted men, and the law requires that they be paid 5 cents.

Mr. OLIVER. Since you predicate the increase almost altogether on the division of the fleet, which results in longer travel from the Pacific coast, I am wondering, if Congress should largely reduce the enlisted personnel as you indicated, whether you could not save considerable money to the Government by having the enlisted men brought, not over the railroads, but around to the Atlantic coast on some of your own vessels and distributed from the Atlantic coast.

Captain WILLIAMS. We do that to the very greatest extent possible.

Mr. OLIVER. In other words, a difference such as your estimate here shows would certainly justify the assembling of these men and bringing them on your own vessels and then sending them to their homes from the nearest ports on the Atlantic?

Captain WILLIAMS. If a man is discharged on the Pacific coast and his home is in Chicago—

Mr. OLIVER (interposing). You do not catch the point. You are contemplating the discharge of many of these men in advance of the time when they would be entitled to their discharges, and you are given that right. Now, if in running over the list of those whom you intend to discharge you find that a large number come, say, from the territory around New York or Boston, could you not, with very great saving to the Government, bring those men by boat through the canal and have them discharged on the Atlantic rather than on the Pacific coast?

Captain WILLIAMS. That is done, sir.

Mr. OLIVER. Well, you would do it to a larger extent. If you were served with notice long before July as to the number you would be required to let go, could you not begin to assemble them on your list and know where they were going? Do you not think you could do that?

Captain WILLIAMS. We would try.

Mr. OLIVER. Would you not be able to do it?

Captain WILLIAMS. I am unable to say, but every effort is made to do that, Mr. Oliver.

Mr. OLIVER. Suppose Congress should determine to cut your enlisted personnel to 65,000 or 70,000, which would result in your dismissing from the service early in the next fiscal year a large number of men, you would, of course, begin at once to determine whom you could best afford to spare, would you not?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. And where you found that their enlistments would end anyhow during the next year, of course, you would let them go first, would you not?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. And with a list thus made out, it seems to me you could work a large saving by adopting a different plan from the one you suggested and which you think will result in this great increase from \$38 to \$63.

Captain WILLIAMS. The plan you speak of, of boat, let us say, from the Pacific to the port one which is included and has been inclu

porting men by their homes, is averages, both

e \$62.70 and the \$38. It is possible, if these discharges take place thin short periods of time and in large numbers, that some development of the scheme of which you speak might be possible.

Mr. OLIVER. Here is the idea I had in mind: I can understand, if the Navy continued at its present strength and the enlistment periods ended just as they have in the past from time to time, that it would be impossible to collect, perhaps, at one point a large number of men, put them on a boat, and send them to another place, but if you were to be served with notice that you must get rid of 30,000 or 40,000 men at a certain time in the future, and you say all of this increase is due to the fact that a large number of those men are on the west coast and you have got to pay heavy transportation charges across the continent for them, of course you could assemble those men, put them on a boat, and bring them around at much less cost.

Captain WILLIAMS. We have made certain allowances, which will develop later, in trying to discount the difference between the ordinary rate of discharge and the excessive rate of discharge that we contemplate will take place before July 1, 1923.

Mr. OLIVER. So, if we gave you this amount that would not in any way discourage you in your efforts to economize by assembling them and bringing them around by boat if you found that was feasible?

Captain WILLIAMS. Not in the least.

Colonel ROOSEVELT. I think I can say on that point that the particular idea you have in mind has been worked over by the department and that is intended to offset the fact that we have been tending to get more and more men on the coast, and that therefore, under ordinary circumstances, the \$63 should be more instead of less this year. We are counting on offsetting it by trying to assemble the men just as you say: we are trying to offset the probable increase by trying to assemble the men just as you say.

Mr. OLIVER. You mean assemble them for discharge?

Colonel ROOSEVELT. Yes; just along the lines you have stated; we are counting on that to offset it rather than to decrease.

Mr. OLIVER. What do you mean by offsetting?

Colonel ROOSEVELT. Offsetting an increase rather than a decrease. In other words, we have more men out there now than we had before, and we have been moving more ships out there. Now, if we are to assemble them and bring them back, and thereby reduce the cost, we offset the increase to the \$63.

Mr. KELLEY. Now, Captain, you want \$1,504,800 for travel allowance of enlisted men that are to be discharged after July 1 next?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Mr. Oliver asked you a very pertinent question, as to whether or not in reducing the Navy between now and the 1st of July you would not make a reduction largely from those men whose terms of enlistment expire next year.

Captain WILLIAMS. I think you will find that in item 2, sir.

Mr. KELLEY. That would make a great deal of difference with item 1?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Why would it not?

Captain WILLIAMS. Let us take item 2.

Mr. KELLEY. No; let us finish up item 1. Why would it not?

Captain WILLIAMS. If there had been no effort to reduce it would be approximately 85,000 men on July 1, 1922. It is proposed to discharge—and this is the point I want to call to your attention at once, that is to say, between now and July 1—and I hesitate to put that in this estimate, because it will legally come into 1922, would be a deficiency, but I have put it in here to make it plain 17,000 men, 1,000 chief petty officers, and 16,000 other ratings, to be selected from those whose enlistments will expire during 1922.

Mr. KELLEY. How did you happen to put down the figure 17,000 out of the 41,000 that you would take out between now and the 1st of July and leave 24,000 whose terms will expire after the 1st of July and to be sent home next year? How did you arrive at that?

Captain WILLIAMS. Let us start with the 85,000 to which the Navy would normally be reduced on July 1, and to get down to 68,000 would cause a reduction between now and July 1 of 21,000. Am I right?

Mr. KELLEY. Sixty-five thousand from 86,000 is 21,000. My arithmetic is all right. I do not know as to anything further than that.

Captain WILLIAMS. We did not desire to discharge that many men on the notice which we are going to have to do it. We placed the number at 17,000 arbitrarily. We then expect that before these discharges take place on July 1 we will have a little over 65,000, and that surplus we will take care of in the method we have described here to the committee as a method of easing down, letting the surplus gradually go out, so that by July 1, 1923, we may be forced in averaging to come down and take up that slack somehow or other. These other features mean the question of being able to handle. Perhaps, the excess of chief petty officers at that time. That 17,000 taken from the 41,000 leaves 24,000 which I have spoken of.

Mr. KELLEY. You intend to discharge more than enough to bring the Navy down to 86,000 by the 1st of July?

Captain WILLIAMS. Yes, sir. We intend to bring it down, if I want it that way, to 86,000 minus 17,000, or 69,000.

Mr. KELLEY. You pick out of those you are to discharge ahead of time, ahead of their expirations, 17,000 whose terms expire next year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And 4,000 more of those who have a longer enlistment next year, making 21,000 extra to come out between now and the 1st of July?

Captain WILLIAMS. No, sir; that is not my understanding.

Mr. KELLEY. I will repeat it.

Captain WILLIAMS. Please.

Mr. KELLEY. You are going to discharge, in addition to those who naturally drop out between now and the 1st of July, 21,000 more men?

Captain WILLIAMS. No.

Mr. KELLEY. Please tell me.

Captain WILLIAMS. We intend to discharge between now and the 1st of July 17,000 of those whose enlistments expire in the fiscal year.

2.

Where do you get the other 4,000 to bring it down to 69,000?

1

fiscal year :

we expect to

Mr. BYRNES. If this were not done, then, there would be 24,000 discharged during the next year?

Captain WILLIAMS. There will be 24,000 discharged.

Mr. KELLEY. You do not intend to reduce the Navy to 65,000 under those figures by the 1st of July?

Captain WILLIAMS. I am unable to state that, Mr. Kelley.

Mr. KELLEY. Under those figures how can you state it?

Captain WILLIAMS. Limited just to these figures, that is a false assumption.

Mr. KELLEY. You are reducing the Navy to 70,000 under these figures by the 1st of July?

Captain WILLIAMS. You know and I know, Mr. Kelley, that there are other people who go out of the Navy besides discharges.

Mr. KELLEY. I understood you to say that for all reasons that you knew anything about if you did not enlist any more the Navy would of its own weight drop down to 86,000 by the 1st of July?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And that you proposed to take out of the 86,000 between now and the 1st of July 17,000 whose terms of enlistment expire next year?

Captain WILLIAMS. Yes, sir; I propose to discharge 17,000; that is a different thing.

Mr. KELLEY. Then you propose to discharge 17,000, and the other 4,000 who go out are odds and ends of people who you do not care to keep or who will possibly resign or get sick, unfit for duty, and all that sort of thing?

Captain WILLIAMS. Plus, perhaps, some excess that may require special treatment like CPO of long service and others who we will have to handle and may not be able to get rid of.

Mr. KELLEY. Of those 4,000 that will go out, some of them, of course, will naturally be of the class whose terms would expire in 1921?

Captain WILLIAMS. We are getting all mixed.

Mr. KELLEY. No; we are perfectly straight.

Captain WILLIAMS. You asked me one question which was very illuminating. I do not think you got the answer. You said you do not propose to reduce the Navy to 65,000 by July 1; that is the gist of the question.

Mr. KELLEY. What is the answer?

Captain WILLIAMS. The answer is, "Perhaps not." You must bear in mind that you are figuring on these things like you were dealing with matériel. When you and I have always talked we said that we could not do it. I think, under the circumstances, if we went on to these other items that you would have a broader view.

Mr. KELLEY. I believe not. I would rather go straight along as we have been going. Of the 4,000 others that will be discharged by the 1st of July—

Captain WILLIAMS (interposing). I do not like to say that those 4,000 will be discharged by the 1st of July; they may or they may not be.

Mr. KELLEY. If they are, some of them would be in the class of those whose terms of enlistment will expire during the coming fiscal year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You have not made any calculation for them at Captain WILLIAMS. No.

Mr. KELLEY. You have not taken into consideration the proportion of the 4,000 that will go out between now and the 1st of July this figure?

Captain WILLIAMS. In the first place, I think we are talking cross purposes.

Mr. DAVIS. Why can not the 4,000 be discharged by the 1 July?

Captain WILLIAMS. They can. In the first place, there are a number of problems that enter into it. This is a plan that we designed as the best solution for a very complex problem.

Mr. KELLEY. I think you have it all right, only you have not allowed any allowance for the proportion of the 4,000 whose terms expire next year. Suppose we make that calculation to help you out.

Captain WILLIAMS. I do not agree with you. Suppose we discharge 65,000 on July 1; in the first place, we want every one of the 65,000 men. That is not the reason we are—

Mr. DAVIS (interposing). Can not you get along without the 4,000?

Captain WILLIAMS. We want to get down to the limit grade of the fleet. We have many ships in commission that will have to be put out of commission, and probably other craft; we have men of long service who we would like to give as much consideration as the law allows. If this bill passes by the end of this month, it will cost very much more to put these complicated provisions into effect. This is the way that our experience in handling these cuts in the past leads me to believe is the best way to handle it in the future. If we get down to 65,000 exactly by July 1, it will cost a lot of money. It is a very, very expensive thing to do. It will cost much more than anybody would believe. In the first place, you have got to discharge 4,000 men, pay, and do this thing and the other thing to reduce. As a mathematical result it would seem highly desirable; afterwards you would have to see whether it is desirable.

Mr. DAVIS. Does it cost more to reduce by the 1st of July than by the 1st of August?

Captain WILLIAMS. No, sir. There are two ways of doing it. It should be done when a man's time is nearly up, let him go and get on.

Mr. KELLEY (interposing). Your idea on that, Captain, would differ materially from mine, that men should have a little notice before they quit any position?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Have you the figures to show how many men were discharged the last year on the Pacific coast who had to be transported to the Atlantic coast?

Commander BROWN. We have a table showing the enlistments from July 1, 1920, to December 31, 1920, a half year, and it shows that 39,500 men were recruited from the districts east of the Mississippi; only 4,500 men from those west of the Mississippi. The ship is held practically all the time.

Mr. KELLEY. You would say that probably 90 per cent of the men on the Pacific coast would have to be brought home?

Mr. KELLEY. Then there would be but 10 per cent of railroad transportation involved in this if you worked it out as you ought to?

Captain WILLIAMS. You are dealing with averages. You have not one-tenth of the figures on which to base the average.

Mr. KELLEY. I am taking the young officers word, and if it is not so, he is wrong, and I will have to change my conclusion.

Captain WILLIAMS. He is right.

Mr. KELLEY. Then my conclusion is right.

Captain WILLIAMS. The elements that enter into the figure of 62.70—

Mr. KELLEY (interposing). That was when you were not watching, when Colonel Roosevelt did not have his eye centered there. You have not any idea that the figure for next year will be \$62.70 after all that has been said and after all the thought you have given to his problem, which is a difficult problem?

Captain WILLIAMS. I will tell you very frankly that I know of no better figures.

Mr. KELLEY. Of course, you do not.

Captain WILLIAMS. After all of this reasoning, if I could say it was \$50, I would advocate it. I know of no better figure.

Mr. OLIVER. Let me ask you this question: This picture arises to me as one of the problems and I imagine you have probably dealt with it. In determining the number of men you will discharge, in the event you are required to discharge this large number, bringing it down to 65,000 or 70,000, you must, of necessity, on the ships that you are to keep in commission, transfer to those ships men from other places in order to take the places of those discharged herefrom?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. And the cost of the transfer of those men is an item which you are bound to take into account in determining just what is going to be the ultimate cost resulting from the discharge, because that is an item which enters into the discharge?

Mr. KELLEY. That is another item, Mr. Oliver. You have three big transports and then you have cargo ships plying back and forth from the Atlantic to the Pacific all the time; you are going to have some five or eight of those and three transports plying back and forth, and if you watched the thing pretty carefully you probably could bring quite a large percentage of those discharged back on those cargo ships and on the transports and on the Shipping Board's vessels which ply every day without any great expense to the Government. How much would it cost to go from San Francisco to New York by water?

Captain WILLIAMS. By the transports?

Mr. KELLEY. If you had to pay your fare on a commercial vessel.

Captain WILLIAMS. It would cost about \$300 or more.

Mr. KELLEY. By water?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And on those ships it costs \$1 a day for food, if the ship is making the trip anyhow.

Captain WILLIAMS. We have been speaking here for some time in the committee about making an allowance for the extraordinary situation.

Mr. KELLEY. I want to ask you this further question: Have any information which would help the committee to work out a percentage of those discharged on the Pacific are brought back by water?

Commander BROWN. I can not give you any number.

Mr. KELLEY. I should think that you people would know how many had to have their fare paid across the continent and how many were brought around by water.

Captain WILLIAMS. We do not bring them across the continent.

Mr. KELLEY. You bring them all back practically this way?

Captain WILLIAMS. Suppose a man is discharged in the center of the country; it makes no difference whether you bring him back by water.

Mr. KELLEY. It would only make the difference between \$38 and \$63, those in that class?

Captain WILLIAMS. Perhaps not. When you take the other transportation expense, I know of no way to figure the \$62 except if you are not disputing the \$62; you are disputing that the average will not—

Mr. KELLEY (interposing). That is right.

Captain WILLIAMS. I have allowed for that in another item.

Mr. KELLEY. I am simply saying that one swallow does not make a summer. This one year you have had this experience. How much would it cost to transport a man on one of our own ships around to the Atlantic, and then add that to the \$38 which it formerly cost to bring him home, on the average, and we would have some idea. Suppose one of the cargo ships were coming home and you were to put men on her to bring to the Atlantic, how much would it cost the Government?

Captain WILLIAMS. It depends entirely on how you figure.

Mr. KELLEY. Here is the transport *Hancock*—if that is one of the transports—coming round and you put 100 boys on her at San Diego and bring them to Norfolk; how much would it cost?

Captain WILLIAMS. Take their pay and loss of time—

Mr. KELLEY (interposing). Just take the one item of transportation.

Captain WILLIAMS. You are transferring this additional expense to the other item which we call replacements.

Mr. KELLEY. We will leave that out.

Captain WILLIAMS. One hundred men from San Diego to Norfolk will spend all their time on the replacement list.

Mr. KELLEY. We will not talk about that. How much will it cost to bring those boys around from the Pacific to the Atlantic in our own ships?

Captain WILLIAMS. It would cost practically nothing, except to charge the running of the ship.

Mr. KELLEY. No; the ship runs back and forth all the time. The storeships have to come around to the Atlantic to get stores and back.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And when they come over they could bring the boys back.

Captain WILLIAMS. That is the practice; that is included in the \$62.70.

Mr. KELLEY. I wish whoever is the mathematician in your firm could tell me how much it costs to bring a man from the Pacific to the Atlantic so we can add it to this \$38. You say that it would not cost anything.

Captain WILLIAMS. If you cut out his pay.

Mr. KELLEY. Not pay, but just the question of transportation.

Captain WILLIAMS. It will not cost any more.

Mr. KELLEY. Would not the \$38 do it?

Captain WILLIAMS. I have the facts and the facts are expressed in the average. It costs with the application of this theory that you

Mr. KELLEY (interposing). Have you brought them around?

Captain WILLIAMS. Up to the present time in every conceivable case in which it could be done it has been done that way. That practice is included in the \$62.70 average. You say that this coming year will be extraordinary?

Mr. KELLEY. I think it will go back to normal.

Captain WILLIAMS. All right. The discharges will be excessive, very great, and consequently this practice you advocate will have a greater application. I have allowed for that large number of discharges in another item.

Mr. KELLEY. The fact is you do not know what percentage of the boys you have brought back by water and what percentage you have brought by land or what it has cost?

Captain WILLIAMS. I know that in the year 1920 it cost so much mileage to discharge so many men.

Mr. KELLEY. But you do not know how it was done that year and you do not know whether you were watching it as closely as last year. What orders did you issue last year about bringing the boys from the Pacific to the Atlantic?

Captain WILLIAMS. That wherever possible they should be transported by water. In fact, there have been times when the ship's efficiency has been seriously interfered with by bringing back these people and protests have been received, and also protests have been received about the manner in which some of the ships that came from the Pacific coast were overcrowded.

Mr. KELLEY. Commander, what do you know about the cost of bringing the boys from the Pacific to the Atlantic by water?

Commander BROWN. What Captain Williams says is true; it would cost less if you do not—

Mr. KELLEY (interposing). Only figure in the transportation.

Commander BROWN. If the ship is coming home, it costs nothing for transportation.

Mr. KELLEY. You do not know, as a matter of fact, what percentage last year was brought that way?

Commander BROWN. No, sir.

Captain WILLIAMS. We can very easily get that for you.

Mr. KELLEY. I wish you would.

Captain WILLIAMS. It would not give you anything you want.

Mr. KELLEY. It will help me; it may not help you.

Commander BROWN. The \$62.70 is based on relatively the same figures I quoted as to place of enlistment and also the same proposition you are making now that the men be brought back from the West coast so far as possible in naval ships.

Mr. KELLEY. The only question is whether "as far as possible" means really that or not.

Commander BROWN. Yes, sir.

Mr. KELLEY. Whether or not you have actually carried them as far as possible that way.

Commander BROWN. You would have nothing but naval ships performing transport duty, taking men around to be discharged.

Mr. KELLEY. How many men do you discharge a month?

Captain WILLIAMS. Forty-one thousand a year; 4,000 a month.

Mr. KELLEY. That is in all the service, in the Atlantic and in the Pacific. You have only half of your people there. You would have to transport 2,000 a month back from the Pacific, or, say, 1,500.

Captain WILLIAMS. If there is any better figure than \$62.70, let us take it.

Mr. KELLEY. I am trying to get one.

Captain WILLIAMS. Let us agree as to the difference, if there is a difference, and let us take any figure you please and multiply it by the number of men to be discharged, and if there is a deficiency, it can be met later.

FOR TRAVEL ALLOWANCE TO MEN GIVEN EARLY DISCHARGE.

Mr. KELLEY. Take the second item. How did you get that figure?

Captain WILLIAMS. This is a figure that I want to call your attention to and to explain that this sum of money more properly belongs to the appropriation for 1922, and I introduced it here to make the situation clearer.

There will be approximately 85,000 men in the service on July 1, 1922, and this number must be reduced to about 65,000. It is proposed to discharge at once 1,000 chief petty officers and 16,000 other ratings, these to be selected from those whose enlistments will expire during 1923. For transportation of these men to their homes at \$62.70 per man, 17,000 by \$62.70 equals \$1,065,900.

Mr. KELLEY. That will be a deficiency?

Captain WILLIAMS. That is more properly called a deficiency.

Mr. BYRNES. For this fiscal year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That item should come out of this bill entirely?

Captain WILLIAMS. If you approve this plan.

Mr. KELLEY. This is an item which could be determined absolutely a little later on, if it is a deficiency?

Colonel ROOSEVELT. It is this year's deficiency.

FOR TRANSPORTATION OF ENLISTED MEN, APPRENTICE SEAMEN, AND APPLICANTS FOR ENLISTMENTS.

Mr. KELLEY. Go to the third item.

Captain WILLIAMS. The 24,000 men discharged by expiration of enlistments must be replaced. In addition, there will be about 8,000 lost by other than "honorable" discharges, such as deaths, desertions, bad conduct, and dishonorable discharges, medical surveys due to own conduct, etc. This means that $24,000 + 8,000 = 32,000$ replacements are necessary. Of the 24,000 "honorable" discharges, it is estimated that there will be 14,000 reenlistments. The remainder

must be made up by first enlistments; $32,000 - 14,000 = 18,000$ first enlistments required.

Men reenlisting are sent to ships direct, at an average cost of \$38.19 per man. For this there is required (a) $14,000 \times \$38.19 = \$534,660$.

Newly enlisted men are sent to training stations, at an average cost of \$31.12, and later to ships at an average cost of \$22.71 per man. The total cost per recruit is, therefore, \$53.83, and for 18,000 men, (b) $18,000 \times \$53.83 = \$968,940$. The total for this item is \$1,503,600.

Mr. KELLEY. Of the 24,000 men whose terms of enlistment will expire this next year, you estimate how many will come back?

Captain WILLIAMS. Fourteen thousand.

Mr. KELLEY. That is 60 per cent?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. That is based upon your experience in the past?

Captain WILLIAMS. Our experience in the past has been around 60 per cent, but owing to circumstances we raised it a little bit. In addition to that, we lowered the 8,000.

Mr. KELLEY. That would be 14,000 who would be brought back to their homes on the Atlantic coast, probably?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. There is no dispute about that item, I suppose. Then, to make up the difference between that and the number required, you figure you would have to have 18,000 reenlistments—first enlistments, one or the other?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You figure that they will come back at the same rate?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Now, the probabilities are that out of the number of people who may have been discharged, you can reenlist a much larger proportion than you have figured. The amount in money would be the same, but you would get a larger percentage of people out of this great force that has been discharged, and it is probable that there would be so many that would want to come back that the number would exceed 60 per cent of those whose terms of enlistment expire!

Captain WILLIAMS. My normal estimate on reenlistments is 50 per cent.

Mr. KELLEY. Between now and the 1st of July you will discharge 17,000 men ahead of time, and during the next year, after those boys have been out for a few weeks or months, have you not an idea that quite a large percentage of the 17,000 would reenlist for two years or three years?

Captain WILLIAMS. Experience is all that we can go by. For the last two years we have developed the search for reenlistments to a very high degree.

Mr. KELLEY. During the next year you would have a method shown to you, though. You would discharge for expiration of enlistments 41,000 men.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. And out of that number, you would probably get back 24,000?

Captain WILLIAMS. No, sir; we would probably get 20,000.

Mr. KELLEY. You figured on 60 per cent, did you not?

Captain WILLIAMS. That, as I say, is on account of the fact that this is an extraordinary year. For that reason I am figuring 60 per cent.

Colonel ROOSEVELT. In the 14,000 that Captain Williams is speaking of, he is including, I believe, the reenlistments of people who have been in the service before and who will come back.

Mr. KELLEY. Your experience this last year has been that you have had more than 60 per cent of reenlistments. He is only taking last year's experience, and not even quite that.

Commander BROWN. Last year's experience was about 68 per cent.

Mr. KELLEY. It was almost 70 per cent that came back.

Colonel ROOSEVELT. I think there is a misunderstanding about that.

Mr. KELLEY. What percentage of those whose terms of enlistments expired have reenlisted this year?

Commander BROWN. About 68 per cent.

Colonel ROOSEVELT. But that 68 per cent did not represent people whose terms of enlistment expired and who immediately reenlisted, but it represents people whose terms of enlistment expired plus people who had been in the service formerly.

Commander BROWN. That is correct.

Mr. OLIVER. What number represents the plus?

Commander BROWN. We have not attempted to segregate that.

Mr. OLIVER. I want to know that. I do not think that gives any information unless you can give us the number representing plus.

Commander BROWN. The reenlistments represent the men who had previously served in the Navy.

Mr. BYRNES. You include in that 60 per cent any man who previously served in the Navy and who reenlists?

Commander BROWN. Yes, sir.

Mr. OLIVER. Are you able to state that number who had been in the service previously as distinguished from those who immediately reenlisted upon the expiration of their term of service?

Colonel ROOSEVELT. It would be a reenlistment, but a noncontinuous service.

Commander BROWN. I can not give that information officially. I would hesitate to guess.

Mr. BYRNES. Suppose you find out and put it in the record.

Commander BROWN. I will do so.

Mr. OLIVER. That is a very interesting matter, and I just assume that, in order that you might be able to give that information only to the service but also to Congress, you doubtless were kept an estimate of the number that you are able to secure from the sources with which you hoped to fill those important positions. I remember that when you asked for favorable legislation that we call them back, you stated that that inducement would be required in order to get them; you stated that you knew how many there were who were available and who would be likely to accept the invitation on the favorable terms granted, if you were able to get the legislation.

Commander BROWN. We can find out, by looking in the Navy, how many of them are in the service, and

how many there were who were available and who would be likely to accept the invitation on the favorable terms granted, if you were able to get the legislation.

stments. We have the figures available so far as the recruiting is concerned.

Mr. OLIVER. I know that the Navy generally does things pretty efficiently, and it occurred to me that this list should be kept up at all times, so that you would know from what sources your replenishment forces would have to come.

Mr. DAVIS. Would not the same conditions that existed last year continue for another year?

Captain WILLIAMS. We are talking about two separate things.

Mr. DAVIS. Would not the same conditions exist?

Captain WILLIAMS. The two statements are conflicting, and there is a misunderstanding of the word "reenlistment."

Mr. BYRNES. For the purpose of this item, it makes no difference.

Mr. KELLEY. Captain, I think you made a mistake in these figures: You are going to start off now with 65,000 on the 1st of July, and then you are going to lose how many? You have figured out there as 17,000, have you not?

Captain WILLIAMS. No, sir; by the 1st of July we will lose 24,000 plus 8,000, or 32,000.

Mr. KELLEY. You have 65,000, and you will lose 24,000 men?

Captain WILLIAMS. Plus 8,000.

Mr. KELLEY. You will lose 24,000 by expiration of enlistments.

Captain WILLIAMS. Yes, sir; plus 8,000.

Mr. KELLEY. What about the 8,000?

Captain WILLIAMS. The 8,000 will go out for other causes.

Mr. KELLEY. Making 32,000 altogether?

Captain WILLIAMS. Yes, sir. We have cut that 8,000 down below what I would normally expect. That is by reason of taking into account the extraordinary character of the personnel problem in the next year. If you discharge all of those men, or if you are going to change the number, it is quite conceivable that the number who would go out on medical-survey discharge, bad-conduct discharge, those who run away, or are deserters, etc., will be decreased. Therefore, I have decreased that 8,000 below what I would normally expect it to be.

Mr. KELLEY. If you have included the 8,000 down here, then this figure of 65,000 should be 69,000. You have 4,000 too many in there. You have counted the 4,000 that are going to go out between now and the 1st of July in this calculation.

Captain WILLIAMS. I did not say that they would go on the 1st of July.

Mr. KELLEY. You said that the Navy would be reduced by 4,000 men from various causes, bringing it down to 65,000.

Captain WILLIAMS. I did not intend to say that we would reduce the 65,000 on the 1st of July. I tried to make it as plain as I could that I rather expected the Navy on July 1 would have to have more than 65,000 men.

Mr. KELLEY. Your figure here would bring it back to what it was on the 1st of July?

Captain WILLIAMS. I really do not see the bearing. We will lose 4,000 by discharge during the fiscal year 1923, and we will lose 8,000 men from other causes.

Mr. KELLEY. No; because the 4,000 you will lose before the 1st of July—

Captain WILLIAMS. What has that got to do with the 8,000? The only way to arrive at the 8,000 is to say that it is a percentage of either 69,000 or 65,000, representing discharges due to desertion, insanity, disease, or any other causes than honorable discharges. These are the discharges that are not honorable. It represents any other loss to the service besides honorable discharges, and it makes no difference whether you call it 65,000 or 69,000.

Mr. KELLEY. It makes a difference of 4,000.

Colonel ROOSEVELT. I think the trouble comes in connection with the problematical 4,000. The 4,000 is composed of a large number of certain long-service chief petty officers for whom we are considering legislation to place them on a retired basis. As you know, the chief petty officers are out of proportion with the other ratings, so that we have 4,000 to be called out by the 1st of July. We can not definitely determine even yet just exactly what it would be. It would be composed of 80 per cent of an entirely separate item which would not reflect itself in the 8,000. I think that is the general situation.

Mr. KELLEY. You start off on the 1st of July either with or without this 4,000 men.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. If you start off with them, you do not want to replace them.

Colonel ROOSEVELT. If we start with 69,000—

Mr. KELLEY. You start off with 69,000 men?

Colonel ROOSEVELT. After the 1st of July, if this particular legislation which we are talking about goes through, the reduction will be an additional 4,000 plus the 8,000.

Mr. KELLEY. I think we are nearly together.

Captain WILLIAMS. I do not get your conclusion.

Mr. KELLEY. If you will straighten me on the conclusion, I will be all right.

Captain WILLIAMS. That 4,000, if it is 4,000, will be included in either the 24,000 or the 8,000, and it will not be added to them. We will have the 32,000 to handle during the fiscal year 1923, no matter whether you start with 69,000 or start with 65,000. Suppose we start with 69,000, and suppose on the 2d of July we discharge 4,000, then our figures of 24,000 and 8,000 will not have changed.

Mr. KELLEY. But the 4,000 men do not come back, and you are providing for bringing them back.

Captain WILLIAMS. No, sir; I provide for replacements.

Mr. KELLEY. We will figure that out. Why do you include 14,000 men at \$38.19 and 18,000 men at \$50.83?

Captain WILLIAMS. The 14,000 at \$38.19 are reenlisted men who do not have to go to the training stations and from the training stations to the ships. The reenlisted men go direct to the ships.

Mr. KELLEY. Now, if my theory should be correct, and your reenlistments out of the whole body of discharged men would exceed 14,000, then the number in excess would go at the rate of \$38.19 instead of at \$50.83?

Captain WILLIAMS. If that estimate of 14,000 is

Mr. KELLEY. You base that estimate of 14,000 on the basis of 60 per cent of those whose en

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hile your experience shows that 68 per cent of them have reenlisted?

Captain WILLIAMS. That is a misunderstanding. Commander Brown says that 68 per cent reenlisted, but your question relates to quite a different thing. You asked how many out of this 41,000 will enlist within a year, and I said 14,000.

Mr. KELLEY. Here is a certain number that go out upon the expiration of their enlistments, and you get back a number of them in the way of reenlistments, and you get reenlistments from others who have had previous service, the result being that you get back 68 per cent of men who have had previous service, or that was the experience of last year.

Commander BROWN. Yes, sir; that is true.

Mr. KELLEY. You have not figured it on any such basis as that at all, have you?

Captain WILLIAMS. No, sir.

Mr. KELLEY. We will revise your figures.

Mr. OLIVER. If the pay bill that is now being considered becomes law before July 1, since it materially reduces the pay of the enlisted men for the first four or six months, what effect would that have upon their ability to get new men or recruits into the service?

Captain WILLIAMS. I think we can get recruits, provided we can show a career ahead of them.

Mr. OLIVER. You must remember that the young men we are going to play to are, perhaps, not visioning any great career in the future, but they will be attracted into the service by other and more immediate considerations. You will have in the service at that time men who will be retained on a different basis from that of the men who enter now. I have been seriously thinking that matter out, because we do not want to do anything that would in any way hamper you in replenishing these important places. I knew that you were top-heavy in the higher places, and I was wondering whether you had given careful thought to that phase of it.

Captain WILLIAMS. We have, sir.

Mr. OLIVER. In other words, this bill, if accepted, will retain by a saving clause the pay of those who will enter before the 1st of July. Then you will suddenly cut off those rates, and the men who will come afterwards will come in on an entirely different basis.

Mr. KELLEY. It was stated the other day that they were hanging around the recruiting stations to see what they would do about enlisting.

Mr. OLIVER. That is a matter of serious import to you.

Colonel ROOSEVELT. I do not think you will find a lot of them hanging around.

Mr. KELLEY. They will be going right in?

Colonel ROOSEVELT. They will either come in or decide to remain in. They will not hang around.

Mr. KELLEY. We will take up item No. 4.

Captain WILLIAMS. Item No. 4 covers transfers of men between ships and stations, other than those noted in the above items. It averages 66½ cents per man per month, or \$7.96 per annum. For a levy of 65,000 men this cost would be 65,000 times \$7.96 per annum, \$517,400. This includes the cost of the transportation of the men discharged for physical disability due to their own misconduct,

and transfers of sick and insane. The cost of this item of expenditure under items 5 and 6, respectively, is \$46,380. This amount deducted from the above, and the total cost of item 4 is then \$517, minus \$46,380, or \$471,020.

Mr. KELLEY. Is that the same figure you gave last year for entire movement of men in the Navy?

Captain WILLIAMS. I am not certain whether it is or not.

Commander BROWN. It was 13½ cents per month per man.

Captain WILLIAMS. This includes the cost of transportation of men discharged for physical disability due to their own misconduct.

TRANSPORTATION OF MEN DISCHARGED BY MEDICAL SURVEY.

Item 5 covers men discharged by medical survey for physical disability due to their own misconduct. This represents 0.0022 of average strength. For 65,000 men this would be 143 men. Transportation only for those men to their places of enlistment, \$38.19 per man, there would be required 143 times \$38.19, \$5,461.17.

TRANSPORTATION OF SICK AND INSANE MEN.

Item No. 6 is based on the best available figures and represents 0.0069 per cent of the average strength that is sent annually to tuberculosis hospital at Las Animas, Colo. The average distance 1,600 miles, at 5 cents per mile, or \$80 per man. For a Navy of 65,000 men the number so transferred would be 449 and the cost would be 449 times \$80, or \$35,920. The question that arises in mind there is about Las Animas. The location is only slightly different from the other, and if they do not go to Las Animas it will be to some other place close by.

Mr. KELLEY. These are tuberculosis cases?

Captain WILLIAMS. Yes, sir. For insane patients who are transferred to hospitals at Napa, Calif., and Washington, D. C., the average transportation cost, including that of guards, is \$24.87. The number of the insane committed each year is 0.0031 of the total strength. For 65,000 men the number of commitments would be 201, and cost would be 201 times \$24.87, or \$4,998.87. The sum of those parts of this item is \$40,918.87.

TRANSPORTATION OF RESERVES.

Item No. 7 covers the question of the transportation of reserves and this is the best calculation we can make. The modified calculation produces about \$300,000. That involves a number of elements.

Mr. KELLEY. Give us the number of men to be transported and the rate.

Captain WILLIAMS. I have been getting pretty complicated, but the \$300,000 is largely an estimate.

Mr. KELLEY. Give the sum total with the number of men we have in mind and the average cost of transportation.

Captain WILLIAMS. This is based on the assumption that 120,000 men take the train, of men are allowed transportation free. The sum total is \$300,000. A certain number in the reserves, and that 50 per cent of the total.

reduced by this calculation is \$834,975. Now, due to the fact that many of the men live in States on the seacoast, we would reconsider that estimate and make some reduction. We took States like Massachusetts and New York, Virginia and Florida, and cut them down. Finally we got \$300,000 as the net result of the combined calculations on the subject.

Mr. KELLEY. Some of the men living back in the interior would cost more for transportation than others living nearer the seaboard? Captain WILLIAMS. Yes, sir.

TRANSPORTATION OF CIVILIAN OFFICERS AND CREWS OF NAVAL AUXILIARIES.

Item No. 8 is put in simply to hold the title of the appropriation. While all the auxiliaries are now manned by reserves, and no civilians are employed, it is desired to retain the wording of this item in the bill in case it should be found necessary to employ civilians on this duty. Consequently, an arbitrary nominal sum is named for such transportation, namely, \$500.

TRANSPORTATION OF CIVILIAN OFFICERS DELIVERING DESERTERS, ETC.

Item No. 9 covers the sum necessary for the purchase of railway guides for all stations, at \$12 each, and for the payment of the transportation of civilian officers delivering deserters, the total amount being \$3,000.

Mr. KELLEY. Is this largely for railroad guides for officers of the department?

Captain WILLIAMS. No, sir. If a man deserts and is apprehended, the railroad fare must be paid.

Mr. KELLEY. Railroad guides constitute a small item in this?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. It is almost entirely for the apprehension and delivery of deserters?

Captain WILLIAMS. I am not prepared to state just how it is divided.

Mr. KELLEY. Railroad guides for the department must represent a small item.

Commander BROWN. The railroad guides cost about \$12 apiece.

Mr. KELLEY. How many do you buy?

Commander BROWN. We buy a guide for each recruiting ship and all other stations that handle transportation.

Mr. KELLEY. How much would it be out of this \$3,000?

Commander BROWN. I would have to look that up.

Mr. KELLEY. It is a small sum and maybe you can give an approximation of it.

Captain WILLIAMS. We can get the bills for them.

Mr. KELLEY. I do not want to bother you with looking it up.

Commander BROWN. It is probably \$600.

Mr. KELLEY. And the rest of it is for the payment of officers in apprehending deserters?

Commander BROWN. It is for the payment of the transportation of civil officers in apprehending deserters and also the posting of wards.

EXPENSES OF RECRUITING FOR THE NAVAL SERVICE.

Captain WILLIAMS. Item 10, expenses of recruiting for the naval service, \$105,820. For recruiting bureau, \$69,000; expenses for lecturing particular activities and for miscellaneous publicity, \$2,800; cards, signs, and exhibits, \$9,840; local printing, \$10,000; lodging and subsistence of applicants, \$42,000, and expenses of traveling recruiting parties, \$5,000, producing a total of \$138,640. We tried to reduce that by cutting it down and we did cut it down by \$32,820, making the revised estimate \$105,820.

Mr. KELLEY. Do you know what your cost per month now is?

Captain WILLIAMS. Per man per month?

Mr. KELLEY. No; the total cost per month?

Captain WILLIAMS. These are the actual expenses, and dividing that by 12—

Mr. KELLEY (interposing). I did not know but what you could give me about what you were paying per month.

Captain WILLIAMS. Our recruiting has almost ceased to exist.

Mr. KELLEY. But how much is it costing you?

Captain WILLIAMS. I will get it for you.

Commander BROWN. The figures which Captain Williams has read are the actual costs, or, rather, the sums appropriated for last year, and we have cut those figures down to what we have indicated as our saving; we have tried to economize, and each station reports what it has spent from its allotment, and we have taken 12 times the average monthly saving for all stations in arriving at the \$105,000.

Mr. KELLEY. Can you tell me how much it costs per month at the present time?

Commander BROWN. Not exactly.

Mr. KELLEY. Approximately?

Commander BROWN. The difference between \$105,000 and \$130,000 is \$25,000, and it would be about \$9,000.

Mr. KELLEY. That is about what you are asking here?

Commander BROWN. Yes, sir.

Mr. KELLEY. And your recruiting stations are pretty well closed down now?

Commander BROWN. We have cut down from practically 330 main and sub stations at the beginning of last year to 33 or 34 stations this year.

Mr. KELLEY. And whether you have new recruits or whether you reenlist experienced men, these places have to be kept open?

Commander BROWN. Yes, sir. I think we have reduced the number as far as we possibly can.

Mr. KELLEY. How many officers are at the recruiting stations?

Captain WILLIAMS. I think I have the figures here.

Mr. KELLEY. I think that is the list showing the disposition of your men, so you need not bother; we can find that.

Commander BROWN. If my memory serves me correctly I think there are 67 officers.

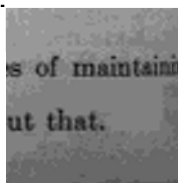
RENT OF RENDEZVOUS, ETC.

Mr. KELLEY. No. 11.

11

rendezvous and

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Captain WILLIAMS. For operation of trucks at recruiting stations, 2 trucks at \$592.41 per annum, \$13,033.02; rental of offices, \$75,000; paint, varnishes, and equipment for recruiting service, \$3,000; and miscellaneous expenses, \$40,000; making a total of \$131,033.02.

Mr. KELLEY. This is mostly office rent for recruiting is it not?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. What do you mean by rent of rendezvous? That as a rather poetic sound.

Commander BROWN. That is copied out of the old appropriation bill. It means recruiting stations.

Mr. KELLEY. This is based on the number of stations you are now maintaining?

Commander BROWN. Yes.

Mr. KELLEY. I understand the Marine Corps has put nearly all of its recruiting stations in Government buildings. Can you not do that this coming year?

Commander BROWN. Just about a month ago we wrote to the Surveyor General of Real Estate—a new officer in the Treasury Department who has charge of that—and asked for Federal space in all cities in which we have navy recruiting stations, with the exception of New York, and day before yesterday we had a reply from him offering us space in only four cities. We already have Federal space in six others, which would still leave us 20 stations for which we must go out and find space. Incidentally, during the last year we have been able to get the lessors of a number of recruiting stations to cut their amounts very considerably.

ADVERTISING FOR MEN AND APPRENTICE SEAMEN.

Mr. KELLEY. Now Item 12.

Captain WILLIAMS. Advertising for and obtaining men and apprentice seamen, \$2,000.

Mr. KELLEY. That is an item which you usually carry at about that amount?

Captain WILLIAMS. Yes, sir; but I think we have carried it at a much higher figure.

Commander BROWN. It has been higher, and it was higher in the war years, but last year it dropped down.

Mr. KELLEY. These are the posters which you put up advertising life on the sea?

Commander BROWN. This particular sum is for special advertising in the way of newspaper advertising.

Mr. KELLEY. You will not need to do very much of that.

Commander BROWN. But, as a rule, we do not use that at all, and the Secretary of the Navy has full jurisdiction over it.

Mr. KELLEY. You will probably not use any of this item, but it is a small item, anyhow.

Captain WILLIAMS. The next is transportation of dependents of enlisted men, \$82,122.48.

EXPENSES IN LIEU OF MILEAGE TO OFFICERS WITH TRAVELING EXPENSES.

Mr. KELLEY. There is another item, item No. 13.

Captain WILLIAMS. Actual and necessary expenses in lieu of mileage to officers on duty with traveling recruiting parties, \$2,000. That was put in, I think, a year or so ago.

Mr. KELLEY. That pays their actual expenses?
 Captain WILLIAMS. Yes, sir.

TRANSPORTATION OF DEPENDENTS OF ENLISTED MEN.

Mr. KELLEY. Transportation of dependents of enlisted men, \$82,122.48. On what is that based?

Captain WILLIAMS. That is based on the law which permits the Navy to transport the dependents of enlisted men the same as is done in the Army.

Mr. KELLEY. Do you know what you have paid out this year so far?

Captain WILLIAMS. I could find out, but I have not the amount now.

Mr. KELLEY. This is a good deal more than you estimated last year when you had a larger Navy.

Commander BROWN. This figure is twelve times the average monthly expenditure during the last year.

Mr. KELLEY. But that was based on a larger Navy, and you ought to make it six or seven times.

Commander BROWN. It might be slightly reduced but I doubt it, because the appropriation for last year ran out within the first five months of the current fiscal year, and since then we have had to refuse applications entirely and we have simply had to use whatever Navy transportation there was. I do not think that sum is excessive; in fact, I am certain it is not.

Mr. KELLEY. That finishes the item of recruiting and transportation, does it not, Captain?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Then we might turn to the item in which Captain MacDougall is interested.

INSTRUMENTS AND SUPPLIES.

Captain WILLIAMS. That will be "Instruments and supplies."

Mr. KELLEY. This present year you had \$750,000 for "Instruments and supplies." What are your revised estimates for that, Captain?

Captain MACDOUGALL. These figures are based on a Navy of 65,000 men.

Mr. KELLEY. How much have you there, Captain?

Captain WILLIAMS. \$690,112. May I divide that?

Mr. KELLEY. Yes; apportion that.

Captain WILLIAMS. This is for 65,000 men: Services and material in repairing, correcting, adjusting, and testing compasses on shore and on board ship, \$48,193; nautical and astronomical instruments and repairs to same, \$125,612; compasses, compass fittings, including binnacles, tripods, and other appendages of ship's compasses, \$252,774; logs and other appliances for measuring the ship's way, and leads, and other appliances for sounding, \$33,249; for the necessary civilian electricians, mechanics, inspectors, draftsmen, and clerical assistants for gyro compass testing, repair and inspection, and for chronometer caretakers, \$21,784; supplies for seamen's quarters, \$500; all pilotage and towages of ships of war, canal tolls, wharfage, dock and port charges, and other necessary incidental expenses of similar nature, \$165,000; libraries for ships of war, professional books,

hool books, and papers, \$20,000; maintenance of gunnery and other training classes, \$18,000; photographs, photographic instruments, and material, \$500; and printing outfits and materials, \$4,500, making total of \$690,112. That estimate is the best we could make. We made estimates where estimates were possible and made proportionate sums where proportionate sums were possible, and the sum total is that result. Of course, what we will spend depends on what will happen.

PILOTAGE.

Mr. KELLEY. The pilotage item of \$165,000 seems quite large now that our ships are not in foreign waters very much.

Captain WILLIAMS. It does not seem large to us.

Mr. KELLEY. That is because you are in the habit of handling big ships.

Captain WILLIAMS. No; it is because we are accustomed to handling ships.

Mr. KELLEY. I have a sort of recollection that the reason for this pilotage item was the necessity for hiring pilots when our ships were abroad in such large numbers.

Capt. WILLIAMS. It is not only abroad in large numbers but it is dependent on the amount of cruising and it is dependent on a thousand other items.

Mr. KELLEY. Do we have to hire pilots in our own waters?

Captain WILLIAMS. Oh, frequently. You take 22 feet of water in the harbor at Portland, Me.

Mr. KELLEY. And you have to call in pilots from the shore?

Captain WILLIAMS. Yes, sir; and it would be taking an undue risk to do anything else. In the old days we took pilots into Hampton Roads when we did not use them, the idea being to get those men accustomed to handling men-of-war.

Mr. KELLEY. Do you know what part of this item is for pilotage?

Captain WILLIAMS. Do you have it itemized in that way, Mr. Henkel?

Mr. HENKEL. No; we do not know how much was spent for that item, because the reports are made to us combined.

Captain WILLIAMS. Pilotage, towage, canal tolls, wharfage, dock and port charges and other expenses of a similar nature were originally estimated at \$183,500. That was for 100,000 men, and we cut it down through mathematics, if you please, to \$165,000.

Mr. KELLEY. But you did not answer my question. How much of this is for pilotage?

Captain WILLIAMS. I can find out.

Mr. KELLEY. You do not have that information with you?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Would it be much bother to find out?

Mr. HENKEL. I do not think we could find that for you, sir, in time to be useful on these estimates.

Mr. KELLEY. I do not want you to go to much trouble about it because it is a charge which must be met whatever it is, but sometimes the House would like to know the total used for pilotage and things of that sort.

Mr. HENKEL. It is expended by the ships.

Captain WILLIAMS. But we might be able to get it if sufficient it were available.

SERVICES AND MATERIAL IN REPAIRING, ETC., OF COMPASSES.

Mr. KELLEY. I do not want to put you to too much trouble. Services and material in repairing, correcting, adjusting, and testing compasses on shore and on board ship, \$48,193. What part do you have in that, Captain MacDougall?

Captain MacDougall. That and the other items which are the marked "N. O." are the authority by which the Naval Observatory under the Bureau of Navigation, orders the necessary articles provide for the upkeep of the navigation outfits of the Navy.

Mr. KELLEY. You repair those at your place, do you?

Captain MacDOUGALL. Yes, sir; but, of course, that involves much more than a repair item.

Mr. KELLEY. You do not test them on board ship, do you?

Captain MacDOUGALL. No, sir; but it is not all expended at the Naval Observatory for the reason that the work is often times done in navy yards; it depends a lot on the exigency of the case; if there is time and opportunity to send those things to this shop we have them sent here, but sometimes the work is done in a navy yard.

Mr. KELLEY. Do you pay the bills when the work is done in a navy yard?

Captain MacDOUGALL. Yes, sir.

Mr. KELLEY. Then this is really your fund?

Captain MacDOUGALL. Yes, sir.

NAUTICAL AND ASTRONOMICAL INSTRUMENTS.

Mr. KELLEY. Nautical and astronomical instruments and repairs to same, \$125,612.

Captain MacDOUGALL. That is the same as the last.

Mr. KELLEY. That is, the facts about it are the same?

Captain MacDOUGALL. Yes, sir.

Mr. KELLEY. Does that mean the purchase of new astronomical instruments?

Captain MacDOUGALL. Not usually; no, sir.

Mr. KELLEY. Could you buy new ones out of this fund?

Captain MacDOUGALL. Occasionally a new type of instrument and occasionally a certain number.

Mr. KELLEY. But the bulk of this is for repairs?

Captain MacDOUGALL. Mostly for repairs, because when an instrument is turned in from a ship it is necessary to put it in first-class condition before it can be issued to another ship.

Mr. KELLEY. On these scrapped ships there will be a good deal of property of this kind which the Navy Department will have on hand. Will there not?

Captain MacDOUGALL. Yes, sir; and in order to put it in first-class condition it will—

Mr. KELLEY (interposing). You will have to examine it, test it, and all that kind of thing to make it accurate?

Captain MacDOUGALL. We will have to put it in first-class condition before we can put it into commission.

Mr. KELLEY. But you will probably not have to purchase much? That is what I was getting at.

Captain MACDOUGALL. Very little, except, perhaps, some new type of an experimental ship. If, for instance, somebody submitted a totally new design of sextant, which appeared to us very good, we would want to purchase one or two for trial and test.

COMPASSES, COMPASS FITTINGS, ETC.

Mr. KELLEY. This item for compasses, compass fittings, including binnacles, tripods and other appendages of ship's compasses, \$252,774, entirely for new material, is it not?

Captain MACDOUGALL. No, sir; that is for the upkeep of the gyrocompass and its appurtenances.

Mr. KELLEY. And not for the purchase of new instruments?

Captain MACDOUGALL. No, sir. Upon that depends the whole fire-control system of the ship as well as the steering when maneuvering in formation.

Mr. KELLEY. I suppose that should read "repair of compasses, compass fittings," etc., should it not? The way you have it here it would look as though it were for new material and you will probably have a surplus of material of this kind growing out of the scrapping of these new ships.

Captain MACDOUGALL. No, sir; because the new ships which are scrapped do not have these things.

Mr. KELLEY. They have not been ordered?

Captain MACDOUGALL. They have not been ordered for any ships that are to be scrapped. That wording is used because it is the additional wording of the appropriation.

Mr. KELLEY. In this repair item you no doubt took into account the large number of destroyers that will probably be laid up?

Captain MACDOUGALL. Oh, yes, sir.

Mr. KELLEY. And also the scrapping of the predreadnoughts.

Captain MACDOUGALL. We began that estimate at something like \$300,000 for the proper handling of all these instruments for the vessels in commission, and then when orders came to reduce the number it brought this down to \$252,774 without making any replacements, that is, giving up the modernization and replacements that we thought we ought to have; we put all of that aside because we were ordered by the Bureau of Navigation to cut the estimate down, and as a result we have this figure, which includes the upkeep of compasses on ships which are put out of commission, the cost of which is much less than if they remained in commission.

Mr. KELLEY. This does not include anything for keeping in condition the nautical instruments on the *Connecticut* or any of those predreadnoughts like the *Michigan* or the *South Carolina*.

Captain MACDOUGALL. This provides for keeping them in condition of storage on shore.

Mr. KELLEY. They will be taken off of those ships and put in storage and this might include some little item for putting them in shape for storage.

Captain MACDOUGALL. They are instruments which will have to be replaced once a week, or something like that; they have to be taken care of by special people, otherwise they are totally lost; but it is very

small in comparison to what the cost would be if they were on board ship.

Mr. KELLEY. Have you a list of any new equipment you proposing to buy this coming year?

Captain MACDOUGALL. In that particular item?

Mr. KELLEY. In this appropriation.

Captain MACDOUGALL. None in this item, sir.

Mr. KELLEY. None under this item of instruments and supplies?

Captain MACDOUGALL. No, sir; we have no such list because. I said before, we do not expect to buy anything except, of course, what is necessary in the shape of upkeep, spare parts, and things of that kind, which are bought from time to time to repair these different articles and keep them going.

Mr. KELLEY. Is this the only item in which you are interested, Captain MacDougall?

Captain MACDOUGALL. The one at the bottom, sir, the last one on that typewritten sheet.

Mr. KELLEY. I mean in this particular item. I have not inquired about some of these other items because they are small and undoubtedly all right. You are not interested in any other appropriations in the bill except those you spoke about yesterday, at this appropriation under the head of instruments and supplies?

Captain MACDOUGALL. No, sir.

Mr. OLIVER. Captain Williams, speaking of the saving of expense in the discharges that you will be called on to give, and especially on the western coast, may I ask whether it is the purpose of the Navy Department, if it finds it is required to discharge a large number of men whose terms of enlistment will expire during the next year, to assemble its ships at a certain point and have the transports there, if you carry out the idea mentioned by Colonel Roosevelt, so that the men can go immediately from the ships to the transports, thus saving expense at the stations, and also have the replacements there so that those men can take the places of the men leaving the ships—is that the idea?

Captain WILLIAMS. That is the idea wherever possible.

Mr. OLIVER. Then I imagine you would probably assemble them in the southern part of California, around San Diego, where your fleet would have plenty of room to come in?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. The idea is to have your replacements ready when your ships arrive and have your transports ready to take from your ships those you are going to discharge, that is, when you find you have a sufficient number to discharge them in large groups, and then bring them around if any of them are to be discharged from the Atlantic coast?

Captain WILLIAMS. Yes, sir.

Mr. OLIVER. That is the idea, is it?

Captain WILLIAMS. Yes, sir, but, of course, always with the question, whenever possible.

Mr. KELLEY. I think the Bureau of Navigation has really been working on this with good deal of zeal for some months, with the object of effecting economies in transportation on this very minute.

CONTINGENT.

Mr. KELLEY. For the contingent item on page 27 you have an appropriation of \$20,000, and your estimate for the next fiscal year is \$18,000.

Captain WILLIAMS. You may make that \$16,000.

NAVAL TRAINING STATION, CALIFORNIA.

Mr. KELLEY. The California naval training station will be at San Diego this year, will it not?

Captain WILLIAMS. I would like to say about these estimates that have been made for training stations that the situation regarding the training stations is rather involved and uncertain. I would like to explain that we have communicated with the senior officers on the spot, and explained to them as much of the situation as we knew as it developed, or that we were able to explain, and I have not been able to satisfactorily adjust these sums to a condition which has not yet finally developed. Therefore, I am quite aware that these sums asked for are largely based on unknown conditions. For the California training station we have asked for \$125,000.

Mr. KELLEY. Would it not be advisable this year to put in a provision for training stations making the several appropriations constitute one fund to be used at your discretion?

Captain WILLIAMS. I think so, making the funds transferable.

Mr. KELLEY. This station in California will be the one that will be kept in operation?

Captain WILLIAMS. Yes, sir; that will be kept in operation, and we ask \$125,000 for it.

Mr. KELLEY. That is the amount you have spent down there for couple of years back?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Will the new school at San Diego be finished by the 1st of July?

Captain WILLIAMS. I hope so. I hope it will be ready by the 1st of July, and I think it will at the present time.

Mr. KELLEY. In that event, Goat Island will be closed up?

Captain WILLIAMS. That will be used simply as a receiving ship.

Mr. KELLEY. No part of this \$125,000 will be used for the receiving station if the training station goes to San Diego?

Captain WILLIAMS. If it goes to San Diego, it will be transferred there.

Mr. KELLEY. Have you the details that make up this \$125,000?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. You may insert the details in the record, showing the distribution of this \$125,000.

Captain WILLIAMS. I will do so.

(The statement is as follows:)

Maintenance of naval training station, Yerba Buena Island and San Diego, Calif.: labor and material, \$150,000; buildings and wharves, none; general care, repairs, and improvements of grounds, buildings, and wharves, \$30,546.68; wharfage, ferriage, and street-car fare, \$1,609; purchase and maintenance of live stock, and attendance on same, none; wagons, carts, implements, tools and repairs to same, \$3,377.32; fire engines and extinguishers, \$100; gymnastic implements, none; models, and other

articles needed in instruction of apprentice seamen, none; printing outfits and materials, and maintenance of same, \$400; heating and lighting, \$70,544.80; static books, school books, and periodicals, \$1,936; fresh water, and washing, \$18,000; pa boxes and materials, none; and all other contingent expenses, \$22,636.20; maintenance of dispensary building, \$850; lectures and suitable entertainments for apprentice seamen, none; in all, \$150,000.

This is the original estimate; a proportionate reduction must be made to keep expenditures within the estimate of \$125,000 for 65,000 men.

NAVAL TRAINING STATION, RHODE ISLAND.

Mr. KELLEY. The next item is for the naval training station Rhode Island. You have an appropriation for the current fiscal year of \$185,000 for this training station. Have you used that amount this year?

Mr. HENKEL. No, sir; we asked the department for permission to use some of it to save some of the buildings.

Mr. KELLEY. You have not used all of it?

Mr. HENKEL. No, sir.

Mr. KELLEY. How much have you used to date?

Mr. HENKEL. I have not those figures here.

Mr. KELLEY. You are asking \$75,000 for next year?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Is that merely a maintenance item?

Captain WILLIAMS. It is practically all maintenance.

Mr. BYRNES. You have an item of \$60,000 for wages.

Captain WILLIAMS. For the maintenance and upkeep of the training station there are included 1 joiner, 1 plumber, 1 pipe fitter, 1 electrician, 1 painter; for 150 days during the year 1 gardener, 1 general helpers, 1 laborer; and there is included the purchase of a small amount of material, not to exceed \$1,000 in value. The items are reduced from an expenditure under operating conditions of \$70,000.

Mr. BYRNES. This entire amount is for wages that you are paying men to keep up the buildings and grounds?

Captain WILLIAMS. Yes, sir; this is to keep that small force going. There is still a naval representative there.

Mr. BYRNES. That is not included in the \$75,000, is it?

Captain WILLIAMS. Yes, sir. He has to have certain clerical assistance.

Mr. FRENCH. That is nearly twice what you are spending this year?

Captain WILLIAMS. The items making up the estimate are general care, repairs, and improvements to grounds, buildings, wharves, \$17,262; wharfage, ferriage, and street-car fares, \$2,000; purchase and maintenance of live stock and attendance on same, \$7,032.40; wagons, carts, implements, and tools, repairs to same, including maintenance, repair, and operation of two horse-drawn passenger-carrying vehicles to be used only for official purposes, \$2,400—

Mr. BYRNES (interposing). Without going into the explanation of the fact that you expended \$75,000, you estimate an expenditure in 1923 of \$60,000.

and here is

those details, which in 1921 for wages and in 1923 of \$60,000 for labor.

Mr. BYRNES. This is the note below your estimate: Expended in 1921, \$42,000 under the head of wages, estimated under the head of wages for 1922, \$33,000, and estimated for wages for 1923, \$60,000. The items constituting the total of \$75,000, as they appear in the estimate, are wages, \$60,000, and repairs and maintenance, \$15,000.

Captain WILLIAMS. That makes \$65,000?

Mr. BYRNES. No; that makes \$75,000.

Mr. HENKEL. We do not ask \$60,000 for wages. The statement mentioned was inserted before a detailed estimate was secured from the training station. That statement is now changed by the detailed statement from the training station.

Captain WILLIAMS. Suppose I read these items which, I think, will explain it. There are not very many of them.

Mr. BYRNES. It is useless to do that. I want you to explain the difference, if anything has occurred to explain this difference. You may have been using enlisted men for all I know, and you may not be using them now, and that may explain it; but there ought to be some explanation of the increase from \$42,000 to \$60,000.

Captain WILLIAMS. In all probability that labor in one case includes the clerical force and in the year before that clerical force may have been carried by itself. However, I am not certain of that statement. But I have these details, and there are only a half dozen or dozen of them.

Mr. OLIVER. What are you asking for to-day?

Captain WILLIAMS. We are asking for \$75,000 all told, of which the items are: General care, repairs, and improvements to grounds, buildings, and wharves, \$17,262; that may include some labor; harborage, ferriage, street-car fare, \$200; purchase and maintenance of live stock, and attendance on same, \$7,032.40; there may be some labor there; wagons, carts, implements, and tools, repairs to same, including maintenance, repair, and operation of two horse-drawn passenger vehicles to be used only for official purposes, \$2,400; fire engines and extinguishers, \$1,200; heating, \$17,333; lighting and power, \$6,000; salt-water flushing and fire protection, \$10,000; stationery, books, schoolbooks, and periodicals, \$300; fresh water and washing, \$4,500; all other contingent expenses, \$3,500; and pay for clerical, drafting, inspection, and messenger service, \$5,383.60, making a total of \$75,000.

Mr. KELLEY. As far as you know, it is the policy of the department to operate this station on the basis you have indicated?

Captain WILLIAMS. Until the situation changes and then there will probably be a change in the policy.

Mr. KELLEY. I suppose the limitation on clerical hire could be reduced if we took a notion to do it?

Captain WILLIAMS. Perhaps so. They still have the records of a great many men but those records can be transferred.

Mr. KELLEY. This provides enough money to keep the plant in good stand-by condition?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. So that nothing is running down?

Captain WILLIAMS. As I understand it, nothing is permanently deteriorating.

NOTE.—The commanding officer, however, states "the future only can tell whether not this appropriation will be sufficient to prevent serious deterioration of Government property."

Mr. KELLEY. But it does not provide for the training of any at that place?

Captain WILLIAMS. No, sir. Of course, you understand that Coddington Point is out?

Mr. KELLEY. Is any money carried anywhere for that?

Captain WILLIAMS. No, sir.

Mr. KELLEY. What happens to that?

Secretary DENBY. That remains to be seen.

Mr. KELLEY. You will take care of that by sale or lease?

Secretary DENBY. In case we transfer training activities to Newport, Coddington Point, which is separate from the Newport station and consists of temporary buildings, could and probably should be abandoned, dismantled, and disposed of in some manner, or simply kept as a possible reserve for the future. At any rate, it should be handled separately. I would like to say in that connection that the inquiry made in the Senate the other day was directed wholly to the cost of training men at Norfolk and at Newport, but that has been determined yet because there were some errors in the figures. I would like to ask you, Captain, whether or not the data asked for, to go into that record, have been furnished?

Captain WILLIAMS. I do not think that they have been furnished.

Secretary DENBY. So that must still be regarded as somewhat in the air.

Mr. KELLEY. There might be other considerations besides the question of economy, and it is a matter of administration.

Secretary DENBY. Yes, sir; but economy would probably be a prevailing thing at that point.

Mr. KELLEY. If you needed any money to make any immediate repair to a water main or something of that kind at Coddington Point, there is nothing in the language here which would prevent your using money out of this fund, is there?

Captain WILLIAMS. I do not think so.

Mr. KELLEY. These stations are regarded as one?

Captain WILLIAMS. But I do not think it would be wise. I think it should be established as one thing or another; if Coddington Point is going to fall down, let it fall down.

Mr. KELLEY. But a water main might burst there?

Captain WILLIAMS. If it had any effect on Coasters Harbor Island, that would be a different matter, but if these outlying shanties are going to fall down let them fall down. It is my understanding that the principle was established in the Naval Committee and that we were not to spend money at Coddington Point or at East Camp.

Secretary DENBY. Of course, we are trying to get rid of East Camp.

Mr. OLIVER. What are you doing with the torpedo boat harbor near Boston? Are you using that now as a warehouse?

Captain WILLIAMS. No, sir; we are not using it now; we are not using that as a receiving ship.

Secretary DENBY. That has been given back to the owner.

NAVAL TRAINING STATION, GREAT LAKES, ILL.

The next is the Naval Training Station, Great Lakes, Ill.

aptain WILLIAMS. I have here the reply of the commandant at at Lakes, which, I think, illustrates the point I was speaking out before. For 1923 he is asking for \$360,000. That is estimated in great detail and I am unable to do much more, under the circumstances, than to quote what he says about it.

Mr. KELLEY. If it is not too long, but we do not want too much he record about it.

aptain WILLIAMS. His estimate is \$321,000 for 65,000 men.

Mr. KELLEY. Let me see if I can get at it by questions. Does it involve keeping up more than the permanent station?

aptain WILLIAMS. I think it involves keeping the whole station repair except that on the other side of the railroad track.

Mr. KELLEY. Why is it not feasible to move back into the permanent buildings and just maintain that much of the unit?

aptain WILLIAMS. I feel convinced that it is. At the present time at Great Lakes there are some quite extensive trade schools, what the future will call forth in that way I am unable to say. The largest item I find in the estimate is for heating, lighting, and airs to power plant equipment, distributing mains, tunnels, and ducts.

Mr. KELLEY. That depends very largely upon how much of those buildings you heat?

aptain WILLIAMS. Yes, and it depends on how much you allow the elaborate system to fall into absolute disrepair.

Mr. OLIVER. You see, they have no central heating plant there; they have a number of plants.

aptain WILLIAMS. In the winter out there I presume that if the other mains and steam mains are not looked after there may be serious damage done to them, and the station is not authorized to allow this property to deteriorate to that extent without direct authority. I have here a summary which is not very long. Aside from the \$189,980 the largest estimate is \$38,500.

Mr. KELLEY. The \$189,000 is for heating?

aptain WILLIAMS. Yes, sir; heating, lighting, and repairs to power-plant equipment; distributing mains, tunnels, and conduits.

Mr. KELLEY. What was the other item?

aptain WILLIAMS. The next largest item is general care, repairs, and improvements to buildings, \$38,500.

Mr. KELLEY. That does not involve very extensive repairs on a big scale like that; it is just to keep things from falling down?

aptain WILLIAMS. Yes, sir. The next large item is for a fire-fighting force, \$17,000.

Mr. KELLEY. Do you remember how many boys we could handle here before we built these temporary buildings?

aptain WILLIAMS. Ten thousand.

Mr. KELLEY. I do not believe it was that many; 2,500 is my recollection.

aptain WILLIAMS. No; it was more than that. Do you remember the capacity of Great Lakes before the war?

Mr. HENKEL. I have not that information; no, sir.

aptain WILLIAMS. It is more than that; my impression is 4,500; so in the hearings.

NOTE.—The capacity was 1,500.

Mr. KELLEY. My memory seems to be pretty clear that 2,500 the maximum figure before the war. The permanent buildings represent a very fine plant.

Captain WILLIAMS. It is a very fine plant. The whole thing very fine, and it is an enormous place.

Mr. OLIVER. What about your lake wall there? We made appropriation for it, as I understand it, and have you completed it wall?

Captain WILLIAMS. I am unable to say how far that is completed sir. That is not in the personnel business.

Colonel ROOSEVELT. It is not completed.

Mr. KELLEY. I believe they want something like \$500,000 more that improvement.

Colonel ROOSEVELT. It is contracted for.

Mr. KELLEY. The contract is let and the work is in progress.

Mr. OLIVER. That is necessary to save the old station.

Mr. KELLEY. I think that is one of the special items in Yards and Docks.

Mr. BYRNES. In 1916 your appropriation was only \$80,000. What is the explanation of the increase to the amount here estimated \$360,000?

Captain WILLIAMS. By far the larger amount of the increase is due to the increase in the size of the station, which took place during the war, and also to the heating, lighting, and power plants. That is a question we asked the commandant out there, and his answer is as follows:

This excess is accountable for in many ways. The training station, despite the abandonment of the bulk of the war-time enlargement, is still very appreciably larger than it was in 1915, and those parts that were in existence then are some 7 years older, and by June, 1923, will be 8 years older, requiring a larger expenditure for repairs and upkeep. Materials and labor cost very considerably more to-day than they did in 1915; for comparison in this respect there is shown below a table that gives for each of the principal trades employed in the upkeep of the station the rate of pay per day in 1922 compared with that in 1915.

That explains it in part.

Mr. KELLEY. Suppose we gave you twice as much as you had in 1916 on the theory of going back into the permanent buildings would that be a fair way to handle it?

Captain WILLIAMS. I am unable to arrive at a conclusion that is entirely satisfactory to me under the circumstances. The officer on the ground makes that statement, and I have been unable to obtain any information which is sufficiently satisfactory to me to make me alter his estimate.

Mr. KELLEY. As I recall, one of the training schools was the aviation school?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How many boys have you training in aviation there?

Captain WILLIAMS. The number has been cut down now. We have only 62 in aviation.

Secretary DENBY. Aviation and radio.

Captain WILLIAMS. One hundred and thirty-nine machinists' mates, 100 electricians, and 209 radio.

Mr. KELLEY. The special need of any aviation training station?

Captain WILLIAMS. This has been training for aviation mechanics more than actual flyers.

Mr. KELLEY. You can concentrate that so easily at Pensacola that it would not be worth while.

NAVAL TRAINING STATION, HAMPTON ROADS, VA.

The next item is the naval training station at Hampton Roads?

Captain WILLIAMS. There is a training station which, as far as we know, will probably be the principal training station on the Atlantic coast. We are asking for \$360,000 this year. Three hundred and seventy-five thousand dollars is what we had for the year 1922.

Mr. BYRNES. You have reduced it \$15,000?

Captain WILLIAMS. Yes, sir.

Mr. BYRNES. What sort of buildings have you there?

Captain WILLIAMS. I think the buildings they are using are more permanent, although they do require some repairs. Those in the East Camp are of a different character and they are being disposed as rapidly as possible. They are maintained there, having a large force of men, a watch of enlisted men and a certain guard that goes around which could be done if the place were not occupied, but there are some complications about turning that property back to its original owners on which I am not competent to speak. As I understand, the owners do not want to take it back.

Secretary DENBY. The original proposition under which that property was taken was that it should be restored in the same condition in which given. We have concrete roads and everything else, some \$6,000,000 of buildings on that real estate. The Judge Advocate General is in touch with a number of people who are making different offers of one kind and another to take over the salvaging and make the restoration. All we can do is to go ahead and get the best out of it that we can. The last time I told one of the representatives of the people that we would really restore it, that we would tear up the concrete roads and salvage the whole thing and then they would take the land. They do not want that.

Mr. BYRNES. Are you returning it with the concrete roads?

Secretary DENBY. What we are trying to do is to get the best terms we can make for the Navy. In the meantime it has to be protected.

Captain WILLIAMS. We are doing that largely with the enlisted men. The concrete road runs through the center of one fellow's lot and cuts off the corner of another one; that is the trouble.

Mr. KELLEY. Captain, how many boys have you at the Hampton Roads training station at the present time?

Captain WILLIAMS. On the 9th of March, 1922, in the various schools we had 1,812 men.

Mr. KELLEY. That is all you had down there?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. Next year you might have a few more or a few less, but the upkeep of the buildings and the overhead expenses remain pretty constant, regardless of the attendance?

Captain WILLIAMS. Yes, sir.

Mr. K. KELLEY. This is a part of the naval operating base and not your plant there?

Captain WILLIAMS. Yes, sir.

Mr. K. KELLEY. And your light?

Captain WILLIAMS. Yes, sir.

Mr. K. KELLEY. So I suppose you can shut off the units?

Secretary DENBY. We charge a percentage against the training station.

Mr. KELLEY. If you are not using the training station to capacity you probably are not having to maintain the power plant for this particular unit?

Secretary DENBY. No; it is central heating and the training station is charged.

Mr. KELLEY. It depends on what they use?

Secretary DENBY. No; they have made a fixed charge of 68 cent for the training school for the heat, something more than for the light, and something less for the water. I have forgotten what it is. Those are the percentages carried on the books of the training schools, percentages of the total cost of the power plant.

Mr. KELLEY. These buildings in which the schools are located temporary buildings, all of them?

Captain WILLIAMS. I think they are temporary, but I think they are better buildings than the war-time buildings.

Mr. KELLEY. Can you put in the record a statement showing about how the \$360,000 will be applied, so much for repairs, and so on?

Captain WILLIAMS. Yes, sir.

NOTE.—This is the original estimate. Expenditures will have to be reduced proportionately in order to keep within the estimate of \$360,000.

Maintenance of naval training station, naval operating base, Hampton Roads, Va.

Labor, general care, repairs and upkeep.....	\$102,92
Labor, clerical force.....	13,32
Truck transportation.....	8,00
Cutting grass.....	50
Total labor.....	124,74
Material for general care, repairs and upkeep.....	206,765
Material for maintenance, Machinist's Mates' School.....	15,500
Material for maintenance, Electrical School.....	13,200
Material for maintenance, Artificer's School.....	10,000
School books.....	600
Total material.....	246,065
Total labor.....	124,74
Total labor and material.....	370,814

TUESDAY, MARCH 21, 1922.

NAVAL RESERVE FORCE.

STATEMENT OF CAPT. K. N. BENNETT.

Mr. KELLEY. The next item is, "Naval Reserve Force." How much do you want for that this year?

Captain BENNETT. \$200,000; \$50,000 was appropriated last year and we spent \$251,000.

Mr. KELLEY. What do you want with the increase?

Captain BENNETT. We spent more last year than we are asking for this year.

Mr. KELLEY. Where did you get the money?

Captain BENNETT. It was money which was allotted to use—retainer pay which would have gone to these people had they performed their duty.

Mr. KELLEY. You will have that next year?

Captain BENNETT. I am afraid we will not.

Mr. KELLEY. Why not?

Captain BENNETT. We do not know what we will get in the way of retainer pay. We had to disenroll all the Naval Reserve on the 1st of September.

Mr. KELLEY. Under the law, if they did not train when called upon they lost their pay and it went into this fund?

Captain BENNETT. It went into that fund.

Mr. KELLEY. How much was it?

Captain BENNETT. We got at least \$150,000 out of that.

Mr. KELLEY. Is there a balance in the fund?

Captain WILLIAMS. No, sir. That fund lapsed on the first of the fiscal year.

Mr. KELLEY. Next year you think you will not get that large amount?

Captain BENNETT. I am afraid we will not, because the status of the naval reserve appropriation is very uncertain; it is a general appropriation for the pay of the reserve.

Mr. KELLEY. And the whole reserve question is rather in the air?

Captain BENNETT. Very much.

Mr. KELLEY. The Navy Department has not yet worked out what they want for a permanent policy?

Secretary DENBY. It is just about finished.

Mr. KELLEY. Subject to the approval of Congress and naturally the appropriation will come along through the usual channel, but for this year the thing is hazy and nebulous.

Captain BENNETT. This would tend to solidify it a trifle, anyway.

Mr. KELLEY. What you want this money for is to rent armories?

Captain BENNETT. Yes, sir; that is a part. There are several armories which come in there.

Mr. KELLEY. Do you not think that the States should furnish the armories?

Captain BENNETT. The States furnish the armories. It is a little mixed up. This is a nationalized force. It is hardly right for the States, because some are bearing considerable expense.

Mr. KELLEY. If you had a fund like that out of which they could get rent they would be after you all the time to rent their armories!

Captain BENNETT. Maybe it works the other way. The Federal Government is getting, for example, the use of the naval reserve armories in many States which State funds have paid for.

Mr. BYRNES. How many have you in the naval reserve?

Captain BENNETT. About 15,000.

Captain WILLIAMS. Last fall we told them there was no pay for them.

Mr. KELLEY. Until you get the legislation.

Captain WILLIAMS. This force is not disbanded. It is simply transferred temporarily out of the class in which they receive pay to the class in which they do not receive pay. Now, if in addition to that little thing you are going to take away everything else that they need for administrative purposes, they cease to exist. The law reorganizing them is just about to be considered. This is the administrative expense of administering a very large number of men.

Mr. KELLEY. How many are there in the fleet naval reserve?

Captain WILLIAMS. Not so very many.

Colonel ROOSEVELT. I think about 5,000, Governor.

Mr. KELLEY. Men or officers?

Colonel ROOSEVELT. Men.

Mr. KELLEY. How many officers are there?

Colonel ROOSEVELT. Five hundred.

Captain WILLIAMS. In class 1-B there were 1,622 on the 18th of March and in class 1-C there were 937, and class 1-D, 1,747. Class 1-B are people who have had four years' service, about 5,000.

Mr. KELLEY. Those are the only ones you are asking an appropriation for during the coming year?

Captain WILLIAMS. No, sir.

Mr. KELLEY. Here are 5,000 men in the fleet reserve and 500 officers; who else are you asking to have paid the coming year?

Secretary DENBY. We absolutely do not know.

Colonel ROOSEVELT. I should like to explain the situation. We have worked on it a great deal lately. It divides itself into two separate problems. The ex-service men who are in the fleet reserve are paid by law.

Mr. KELLEY. That is what I am talking about.

Colonel ROOSEVELT. Yes, sir. That is separate and distinct from what corresponds to the National Guard, which is the Naval Reserve proper, composed of civilians like the National Guard. At this particular time, in view of the fact that we disenrolled all classes which had a retainer pay last time on account of the fact that we did not have enough money to pay them because of the obligation entailed by the fleet reserve, we have only a small number, I should say about 15,000, which have been transferred into the other classes. As soon as the bill establishes them they will be back again.

Mr. KELLEY. You carry in this bill a certain sum of money which is to pay the 5,000 in the fleet reserve and the 500 officers?

Colonel ROOSEVELT. Yes, sir.

Mr. KELLEY. And the 15,000 men that have not

been disenrolled

have a different

It is pay now,

Mr. KELLEY. How many officers go with the 15,000 men?

Colonel ROOSEVELT. I can not tell you offhand.

Captain BENNETT. The pay of the reserve is carried in the pay the Navy.

Mr. KELLEY. I know where it is carried. How much?

Captain BENNETT. It has been arbitrarily put at \$4,000,000.

Mr. KELLEY. There is the question as to how much money will be forfeited by reason of not training. Whatever is forfeited will be you the appropriation?

Colonel ROOSEVELT. No; the new bill——

Mr. KELLEY (interposing). I am not talking about the new bill.

Secretary DENBY. They are not there; they have gone.

Mr. KELLEY. The 5,000 in the fleet reserve are there?

Colonel ROOSEVELT. They are not called for training and have not been called for training, so there will be no forfeiture.

Mr. KELLEY. We have this option in this case, if we follow your suggestion as you give it now, which is to the effect that there will be no forfeiture in either one of the classes, because there is no appropriation.

Secretary DENBY. There is no pay.

Mr. KELLEY. Then, of course, it follows that the \$4,000,000 for which you are asking will go out, too?

Colonel ROOSEVELT. No, because, Governor, the fleet reserve is called to service and the fleet reserve money is paid on the basis of permanent pay.

Mr. KELLEY. Does that amount to \$4,000,000?

Colonel ROOSEVELT. Between \$2,500,000 and \$3,000,000; we do not know.

Mr. KELLEY. They get that whether they train or not?

Colonel ROOSEVELT. Yes, sir; it is just like a pension.

Mr. KELLEY. What about the others?

Colonel ROOSEVELT. The others only get it if they train.

Mr. KELLEY. And if you do not call them for training they do not get any pay?

Colonel ROOSEVELT. No; but we intend to call them to train, but they would not have any forfeiture in the next bill, as I understand, because they only get paid for service.

Mr. KELLEY. Captain, in the administration of the existing law with reference to the Naval Reserve Force, it is your opinion that the fund will not be augmented by reason of pay being withheld from nonservice and turned into this fund?

Captain WILLIAMS. During the fiscal year 1923 this fund will not be materially augmented.

Mr. KELLEY. This current year you have not been getting anything from it?

Captain WILLIAMS. Yes; in the neighborhood of \$23,000 will be added according to the accounting officers.

Mr. KELLEY. Last year we gave you \$150,000 for this purpose.

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. How are you getting along this year on \$50,000?

Captain WILLIAMS. I can shorten the answer to the question by saying that practically the entire Naval Reserve force outside of class 1 is waiting in class 6 until the Naval Reserve is reorganized.

Mr. KELLEY. Why would it not be better to simply give you \$50,000 for this item this year and wait for the reorganization under the new bill?

Secretary DENBY. I think that would be all right.

RECEIVING BARRACKS.

Mr. KELLEY. For receiving barracks, you estimate \$100,000.

Captain WILLIAMS. The estimate is \$100,000.

Mr. KELLEY. Is this for the New York barracks?

Captain WILLIAMS. It is for receiving barracks at the following points: Boston, Philadelphia, Hampton Roads, and San Francisco. It is desired to withdraw from the receiving ship at Puget Sound and substitute barracks. It also includes Charleston. This appropriation is subject to the question of the adjustment of policies with regard to shore stations.

Mr. KELLEY. Suppose we cut out the receiving barracks and let you go ahead and handle these points just as you have been handling them in the main. You spent a good many millions of dollars on receiving barracks last year, and then you just pick out this little item here and carry it separately. I never could see any necessity for it.

Captain WILLIAMS. I would like to go on that basis, with the Secretary's permission. I would like to go further and get a legal decision on the question of whether we should substitute a phrase here in order to make the current appropriation act applicable to some of these items.

Mr. KELLEY. You can put all of the receiving ships and barracks under the same appropriation.

Captain WILLIAMS. Yes, sir.

NAVAL WAR COLLEGE, RHODE ISLAND.

Mr. KELLEY. For the Naval War College, Rhode Island, you have an appropriation of \$90,950, and you are asking the same amount for the next fiscal year.

Captain WILLIAMS. That is practically the same thing.

Mr. KELLEY. This is where Admiral Sims is located?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. When does he go on the retired list?

Captain WILLIAMS. On January 24, next year.

NAVAL HOME, PHILADELPHIA.

Mr. KELLEY. The next item is for the Naval Home at Philadelphia. This is a fund that is administered by the Navy, and it does not call for an appropriation out of the Treasury.

Captain WILLIAMS. Yes, sir. I am particularly interested in that fund, and I would like to have you look over this statement. There is a line item I would like to call attention to there, and that is the rate that they are allowed by law to receive on the fund. I would like to know why it could be so low. It is written in the law that the rate shall be not less than 4 per cent, and not more than 6 per cent, on the fund.

Captain WILLIAMS. I think so.

Mr. KELLEY. What are these changes you have made in the text of the bill?

Mr. HENKEL. There is one additional baker at \$720, and one boiler at \$720 is changed to a helper pipe fitter at \$975, one additional waitress at \$360; increase of \$315 for one woodworker helper; three laborers at \$540 each, additional, total, \$1,620; elimination of a chauffeur at \$840; increase of \$400 for one stenographer.

Mr. KELLEY. I think that will be subject to a point of order. Why do you leave these places just as they have been?

Mr. BYRNES. You do not have a baker now, and you would be establishing a new position.

Mr. HENKEL. The recommendation for the additional position of baker at \$720 per annum is as follows: The expenditure in 1921 for bread amounted to \$2,939.69, and it is estimated that the cost of king bread at the institution, including the pay of a baker, would be \$2,280.96, indicating a saving of \$658.73 for bread alone.

Mr. BYRNES. You have no baker there now?

Mr. HENKEL. We have one baker.

Mr. BYRNES. Where is his salary carried?

Mr. HENKEL. It is carried here.

Mr. BYRNES. It must be carried as an assistant cook.

Mr. KELLEY. You want 11 waitresses instead of 10, and you want laborers at \$540 each instead of 5. Why do you want all of these extra people here? Is the population increasing?

Captain WILLIAMS. I think there has been a considerable improvement made up there lately. The place was running down, and we have an energetic man in charge of it.

Mr. KELLEY. This is a readjustment of your salary list and effects an increase of about \$3,000 in the entire appropriation?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. This appropriation is \$47,280 for the present fiscal year, and you are asking \$50,110 for next year.

Mr. BYRNES. What is the objection to leaving the amount at \$47,280 and then rearranging these positions?

Mr. OLIVER. As I understand it, you occupy toward this home the relationship of trustees, and the trustees feel that they have sufficient funds to justify this expenditure without taking any part of the principal?

Captain WILLIAMS. It is something like that; yes, sir.

Mr. BYRNES. The balance, if any, is turned into the Interior Department or into a pension fund?

Captain WILLIAMS. I do not know how much balance there is. I think that question of 3 per cent is a matter that will have to be taken up at some time.

Mr. FRENCH. How many are in the home now?

Captain WILLIAMS. I will insert that in the record.

Mr. FRENCH. I would be glad if you would supply that information for the past two or three years.

Captain WILLIAMS. I will supply that for the record.

Mr. BYRNES. This fund represents 3 per cent upon an amount between fourteen and fifteen million dollars. Taking the lowest figure, it would make \$420,000. When they put that amount to the credit of the institution, they deduct from it the appropriation which is

made here. If this appropriation of \$158,000 is deducted, it is a considerable balance over and above this cost, but, as I have the fund represents 3 per cent on more than \$14,000,000.

Mr. KELLEY. There is a fund of \$14,000,000 to the credit of the home, on which the Government pays 3 per cent interest. Three per cent on that would make \$420,000, and when we deduct from the amount appropriated here, the balance goes to the pension fund.

Captain WILLIAMS. Yes, sir.

NUMBER OF INMATES.

Mr. KELLEY. I wish you would put in the record a little statement showing the number of people in the institution as compared with number in previous years. Your statement should also show whether the inmates there now are on an average older and require more than those present in previous years. Of course, the expense of maintaining the institution would be a little higher.

Captain WILLIAMS. I will supply that for the record.

Number on roll, June 30, 1920.....
Admissions during the year.....
Readmissions.....
Died.....
Discharges.....
Remaining on roll, July 1, 1921.....

Veterans of the various wars, on the rolls at the close of the year, number as follows:

Civil War.....
Indian War.....
Spanish War.....
World War.....
Philippine Insurrection.....
Panama Expedition.....
Nonveterans.....

The following statement gives the total service in the Navy and Marine Corps of the beneficiaries on the rolls:

Less than 5 years.....
5 years to 9 years.....
10 years to 14 years.....
15 years to 19 years.....
20 years to 24 years.....
Over 25 years.....

Total

The ages of the beneficiaries are as follows:

Years:	Number.	Years:	Number.	Years:	Number.	Years:	Number.
33.....	1	50.....	1	64.....	2	76.....	2
34.....	1	52.....	12	65.....	3	77.....	3
35.....	1	53.....	3	66.....	3	78.....	3
36.....	1	54.....	4	67.....	8	79.....	8
37.....	2	55.....	4	68.....	2	80.....	2
40.....	1	56.....	3	69.....	6	81.....	6
42.....	3	57.....	8	70.....	1	82.....	1
43.....	3	58.....	2	71.....	8	83.....	8
45.....	2	59.....	2	72.....	3	84.....	3
46.....	1	60.....	7	73.....	5	85.....	5
47.....	1	61.....	5	74.....	8	86.....	8
.....	1	62.....	6	75.....	8	87.....	8
.....	2	63.....	4				

that the ages vary

33 years to 87 years

The beneficiaries are quartered in separate rooms, which are furnished with a single bed, linen and blanket, small wardrobe, chair, bucket, towels, etc. The general health of the beneficiaries has been excellent, most of the ailments being those due to age.

MAINTENANCE.

Mr. KELLEY. For the maintenance of the institution you are asking \$108,512, as against the current appropriation of \$110,366. Will you put in the record a little statement showing the distribution of that estimate?

Captain WILLIAMS. I will do so.

Estimates required for under the appropriation "Maintenance, naval home, Philadelphia, 1923."

Water rent.....	\$132.00
Lighting.....	15,215.00
Heating.....	3,800.00
Metering.....	800.00
Material expenses.....	811.40
Gravestones.....	375.00
General care and improvement of grounds.....	2,000.00
Buildings.....	3,400.00
Cells.....	50.00
Fixtures.....	22.00
Repairs to power plant equipment.....	1,000.00
Supplements.....	500.00
Tools.....	150.00
Furniture.....	1,200.00
Music in chapel.....	880.00
Entertainments.....	1,300.00
Stationery.....	350.00
Books.....	150.00
Periodicals.....	
Transportation of indigent and destitute beneficiaries.....	50.00
Transportation of sick and insane beneficiaries.....	100.00
Employment of beneficiaries.....	9,480.00
Support of beneficiaries.....	63,747.00
Contingent expenses.....	500.00
Operation of one horse-drawn passenger-carrying vehicle.....	400.00
Operation of two motor-propelled vehicles.....	1,600.00
Operation of motor-propelled passenger-carrying vehicle.....	500.00
Total.....	108,512.90

SALARIES.

Mr. KELLEY. The next item is for salaries, Navy Department. There appears to be no change in the statutory salaries, except an increase for the chief clerk.

Captain WILLIAMS. That is the only change.

Mr. KELLEY. You want that salary increased \$1,000?

Captain WILLIAMS. Yes, sir.

Mr. KELLEY. We can not do it. Is there anything else?

Captain WILLIAMS. Yes, sir; there is a change in the additional bill. We asked for 197 and we changed it to 196.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You are asking for 196 more clerks?

Captain WILLIAMS. Yes, sir; instead of 197.

Mr. KELLEY. That is besides the statutory list?

Captain WILLIAMS. Yes, sir. That is called the temporary and it has always been there. That totals \$247,400.

Mr. KELLEY. How many clerks did you have in 1916 on statutory roll and how many temporary clerks?

Captain WILLIAMS. We had 73 statutory clerks in 1916.

Mr. KELLEY. This leaves an addition of 124 clerks?

Captain WILLIAMS. I have that for 1917, 1918, 1919, and 1920. Now we have the records bearing on those that took part in the war, and that work dies very slowly. In addition to that, we have all these statistics to compile, and we have been absolutely unable to get along with this allowance for clerks. In fact, we have not gotten along with this allowance of clerks.

For 1922 we asked for 465 clerks, and we got this number. We made every possible effort to get along and produce those figures that were wanted and to do the routine work of the bureau, but it was utterly and absolutely impossible. We therefore borrowed 13 of our clerks from other bureaus. We borrowed clerks from the Veterans' Bureau to do Veterans' Bureau work. We borrowed from them 11 clerks and we borrowed two from the Bureau of Vocational Training. When in order to make the estimates for recruiting and transportation, we brought in a few enlisted yeomen. The loss due to inexperience among these clerks and the lack of numbers means an expense to the Government that it is difficult to calculate. We were speaking a few moments ago about the reserve business and of wild guessing that was going on there. Most of that guessing was due to the absence of experienced clerks. It did not stop there, it carried a grudge with each one of those reserves, and sometimes justly so, to every part of the country. The records of this war are not dead yet, and they are dying slowly, and we still have calls we have to look after from the Civil War. If there should happen to be any reduction in this clerical work, the first thing we would have to get rid of those outside assistants that we have borrowed. We are confronted at the present time with a sudden command to suddenly order to get to the work of the bonus business somehow somewhere. You can not take any sum of money and say that going to be distributed properly without experienced, reliable, careful men to lead the newcomers. If the bonus carries what we have asked, or \$500,000, for clerical assistance, they will want more and will want them almost immediately.

You can not shift that many clerks out of the street and ask them to go into the complicated business of Government bookkeeping unless you take these men that you are appropriating for and make them leaders. If you do that routine work on any other basis than let the records get behindhand, the cases will go to the Court of Claims as claims against the Government for money. That would be the poorest economy that could possibly be practiced.

Mr. KELLEY. Do you lend any clerks to other departments?

Captain WILLIAMS. We have not loaned any, but we do have clerks. You cut us down 47 per cent.

Mr. COONTZ. We could not take anything if there.

Mr. KELLEY. Admiral, you went into this pretty carefully to

you could make any reductions in the force!

Admiral COONTZ. Yes, sir; and it was impossible to make a reduction. Last year in the other departments you took off 20 per cent, and this year we hoped to make a reduction of 5 per cent, but we could not do that in the Bureau of Navigation.

Mr. KELLEY. You have met the State demands already, have you not?

Captain WILLIAMS. We used extra clerks for that.

Mr. KELLEY. But they are finished?

Captain WILLIAMS. Yes, sir; they were finished in record time. This bonus business is confronting us, and, while it will carry its own appropriation, we will have to mix in new clerks and keep the old ones in order to keep the work going. Then, there are the allowances owing to these Naval Reserve people, and I do not know how many months behind we are on that. That is partly due to the lack of clerks in the Bureau of Navigation. When you discharge men after a war, their records remain active for some years.

Mr. KELLEY. This is quite a while after the war. The war has been over for five years now.

Captain WILLIAMS. But the number of active records is still very great. A man's record never becomes absolutely dead as long as he has relatives.

Mr. KELLEY. Do you answer all of your letters?

Captain WILLIAMS. We try to, but we do not have much luck. We answer letters to you gentlemen through inefficient clerks sometimes, and sometimes the answer, instead of being civil, is pretty curt, is it not?

Mr. KELLEY. No; I have always had nice letters from your bureau.

Captain WILLIAMS. You cut us so hard before that there is not much left to cut.

Mr. KELLEY. What is the average pay of these clerks?

Captain WILLIAMS. About \$1,200.

Mr. KELLEY. Have you figured the bonus of \$240 in this?

Captain WILLIAMS. No, sir.

TUESDAY, MARCH 21, 1922.

RECREATION FOR ENLISTED MEN.

STATEMENTS OF COMMANDER CHARLES R. TRAIN, IN CHARGE OF SIXTH DIVISION, BUREAU OF NAVIGATION, AND LIEUT. COMMANDER R. R. M. EMMET.

Mr. KELLEY. This year you had \$800,000. What is your estimate for next year?

Commander TRAIN. \$455,000 on 65,000 men.

Mr. KELLEY. That is just the proportion of what you had?

Commander TRAIN. The Budget cut our request of \$800,000 to \$600,000, and \$700,000 for 100,000 men, we took naturally the mathematical reduction.

Mr. KELLEY. What would be the amount if you based your proportion on \$800,000?

Commander TRAIN. Roughly, \$400,000.

Mr. KELLEY. That is, if you had \$800,000 for 100,000 men would have to have how much for 65,000 men?

Commander TRAIN. \$520,000.

Mr. KELLEY. What was the total fund available for this purpose last year?

Commander TRAIN. We had \$800,000.

SHIPS STORES PROFITS.

Mr. KELLEY. Then, you had some other sources of income?

Commander TRAIN. We had the source from the ships' profits, and this year, so far, it has reached \$60,000. That is a transaction between the Bureau of Supplies and Accounts and Bureau of Navigation. The ships pay for the moving pictures for their ship's stores profit, certain ships do, and we are credited with that amount by the Bureau of Supplies and Accounts, and for those funds we buy other motion pictures.

Mr. KELLEY. What was the amount secured from the profits for the stores? This is 1921 and I suppose you have complete figures for that year?

Commander TRAIN. It was in round numbers \$70,000—seven odd thousand dollars.

Mr. KELLEY. Were there any other sources besides that from which you obtained funds?

Commander TRAIN. Yes, sir; we have had, as you know, funds turned over by certain welfare societies, which have not yet been expended. We have about \$35,000 left in that fund.

Mr. KELLEY. Do you remember how much you used out of that fund last year?

Commander TRAIN. I can not tell you; not more than \$10,000 or \$12,000.

Mr. KELLEY. Would that represent all that you had with the \$800,000 appropriation?

Commander TRAIN. The American Library Association of a little less than \$5,000, and the Y. M. C. A. additional of \$10,000, which was given for certain educational work.

Mr. FRENCH. The Y. M. C. A. is in addition to the welfare societies?

Commander TRAIN. Yes, sir.

Mr. FRENCH. How much is that?

Commander TRAIN. About \$10,000.

Mr. KELLEY. Is that all?

Commander TRAIN. I think that is about all, sir.

Commander EMMETT. And \$65,000, Supplies and Accounts. That is to be expended for supplies and accounts and nothing else.

Mr. KELLEY. But it would save your obligating this fund for that purpose if you did not have it?

Commander EMMETT. Yes, sir.

Mr. KELLEY. So it all comes together. That makes for 1

\$300,000.

Commander TRAIN. Roughly, I would say that

is correct. How will that compare with your expenditures

Commander TRAIN. We do not know what we will get from and A. to begin with. They gave us a percentage of their appropriation. We figured out \$65,000 was not the correct percentage based on the records in the past, but it was not disputed in the Bureau of Navigation.

Mr. KELLEY. It is my recollection that during the war these ships' profits dropped off almost entirely?

Commander EMMETT. The ships' profits increased during the war on account of the transports taking the soldiers over and a great many ships made a lot of profit. Since the war the profits have dropped off.

Mr. KELLEY. Do you know what the balance is in the Treasury the credit of this fund?

Commander TRAIN. No, sir; it varies from month to month.

Mr. KELLEY. How much did you have in the fund on the 1st of last year?

Commander TRAIN. I think we have about \$60,000 now to our credit.

Commander EMMETT. We got a credit of \$65,000 on the 1st of last year, which we have used to purchase athletic material from time to time to make up for the material that we send out to the ships.

Mr. KELLEY. Was the \$65,000 allotted to you by the Secretary?

Commander EMMETT. It was allowed us by Supplies and Accounts in lieu of their having to pay the ship allotments. A destroyer used to get \$200 a year.

Mr. KELLEY. Let us keep to the financial end. Let us take up the present year. You have an appropriation of \$800,000?

Commander EMMETT. Yes, sir.

Mr. KELLEY. How much did you estimate you would spend from the ship's stores this year?

Commander TRAIN. The ship's stores does not come out of that.

Mr. KELLEY. It is additional?

Commander TRAIN. Yes, sir.

Mr. KELLEY. How much will that be?

Commander TRAIN. I should say, roughly, \$75,000.

Mr. KELLEY. You will have some welfare money this year?

Commander TRAIN. Yes, sir.

Mr. KELLEY. How much have you spent from that fund this year?

Commander TRAIN. About \$16,000.

Mr. KELLEY. How much will you spend during the balance of the year out of the welfare fund?

Commander TRAIN. We will spend, I should say, \$10,000.

Mr. KELLEY. \$26,000 altogether?

Commander TRAIN. That is the welfare fund only.

Mr. KELLEY. Will you have the American Library Association added this year?

Commander TRAIN. Yes, sir.

Mr. KELLEY. How much?

Commander TRAIN. We will spend \$3,400—all of it. The library added, instead of \$3,400, will be \$5,000.

Mr. KELLEY. And the Supplies and Accounts, \$65,000, the same as before?

Commander TRAIN. Yes, sir; that is an estimate.

Mr. KELLEY. They gave you money last year and probably give you the same this year?

Commander TRAIN. Yes, sir.

Commander EMMETT. They say that they will give us a percent of the Supplies and Accounts maintenance. If maintenance is ~~ha~~ will get \$32,000, and if it is one-third we will get one-third of \$65

Mr. KELLEY. That would be \$977,300; that is, for 1922, the rent year. This coming year, how much do you expect to get the stores?

Commander EMMETT. About \$75,000.

Mr. KELLEY. Have you not quite a balance to your credit in fund?

Commander EMMETT. No, sir; we simply get the credit.

Mr. KELLEY. The information which came to us under date November 9, 1921, was that there was a Treasury balance on ships' stores profits of \$328,985.54.

Commander TRAIN. But we only get the exact amount that ships pay for the pictures out of the ships' stores profit.

Mr. KELLEY. Does this fund pile up in the Treasury?

Commander TRAIN. We only get a small portion of the \$360.

Mr. KELLEY. Where does the rest go?

Commander TRAIN. I do not know where it goes. Supplies Accounts take charge of the balance. Our small amount is ~~sp~~ entirely on motion pictures.

Commander EMMETT. For instance, the *Pennsylvania* has a thousand men on board and they take our motion pictures every month. They pay us 30 cents per man or 1 cent a day. That would be \$300. That \$300 goes to the paymaster to be charged out to credit of the Bureau of Navigation and in turn goes to the Bureau of Supplies and Accounts. They simply transfer that from *Pennsylvania* to the Bureau of Navigation, and, of course, we are informed of the transaction. It is reported in a lump and in turn we usually allot that to the motion-picture exchange to meet the current bills.

Mr. KELLEY. You do not treat the profits from each ship as a separate proposition; it all goes into one fund, and then you charge against that for your needs?

Commander EMMETT. We have possibly 100 or 75 ships to which the motion pictures are furnished, and we get the credit from the ships through the Bureau of Navigation. We, in turn, allot the money to the motion-picture exchange for services. They reduce our allotment by the amount we expect to receive from the ships' stores profit.

Mr. KELLEY. Just now let us consider only the financial side. I understand, you get from this fund something like \$100,000?

Commander EMMETT. I think it would be nearer \$75,000 with the Navy of 65,000 men.

Mr. KELLEY. Call it \$75,000. How much will you get from the welfare societies?

Commander EMMETT. I do not know that we will get anything from them.

we will have a balance.

Commander TRAIN. A balance on the 1st of July of about \$25,000.

Mr. KELLEY. You can use that all of next year?

Commander TRAIN. Yes, sir.

Mr. KELLEY. Will you get anything from the Library Association?

Commander TRAIN. No, sir.

Mr. KELLEY. Or from the Y. M. C. A.?

Commander TRAIN. No, sir.

Mr. KELLEY. From Supplies and Accounts?

Commander TRAIN. We will get a percentage. Whether the Y. M. C. A. or the American Library Association will give us anything do not know.

Mr. KELLEY. That is problematical?

Commander TRAIN. Always.

Mr. KELLEY. They have for the last two or three years and they pay again?

Commander TRAIN. Yes, sir.

Mr. KELLEY. That would give you \$660,000 for the coming year?

Commander TRAIN. Yes, sir.

Mr. KELLEY. And you figure that will be about what you have been getting.

Commander TRAIN. Yes, sir.

Mr. KELLEY. That will be 65 per cent, anyway, of the amount you had last year?

Commander TRAIN. Yes, sir.

Publication of estimates, morale division, Bureau of Navigation, 1923, based on a total budget of \$455,000 for 65,000 enlisted men.

motion pictures.....	\$88,725.00	Religion.....	\$1,649.00
navy clubs.....	11,375.00	Contingent.....	1,706.25
athletics.....	17,062.50	Allotments.....	244,619.75
nautical books.....	8,531.25	Education.....	29,575.00
publications.....	6,256.25	Libraries.....	22,750.00
social hygiene.....	9,100.00		
administration.....	13,650.00	Total.....	455,000.00

TUESDAY, MARCH 21, 1922.

GUNNERY AND ENGINEERING EXERCISES.

STATEMENT OF CAPT. WILLIAM C. WATTS.

Captain WATTS. The estimate was originally \$95,000 for this year, compared to an appropriation of \$100,000 for last year. Our appropriation is so little affected by the actual size of the enlisted strength of the Navy that I have been unable to find any means by which I could suggest any reduction beyond the reduction already made to \$95,000.

Mr. KELLEY. This is for gunnery prizes, trophies, and badges in order to improve the interest of the men in efficient shooting and all that sort of thing?

Captain WATTS. Yes, sir. About one-half of the appropriation paid for the first paragraph, "Prizes, trophies, and badges, etc."

Mr. KELLEY. How much is that?

Captain WATTS. Approximately \$46,000, and that, of course, is unaffected by anything except the number of combatant ships in an operative status.

Mr. KELLEY. For the purpose of printing, recording, classifying, compiling, and publishing the rules and results, what do you estimate?

Captain WATTS. About \$30,000.

Mr. KELLEY. What sort of printing is this?

Captain WATTS. That covers the preparation of the orders for gunnery exercises, rules for engineering performances, and the annual reports of the competitions. That figure is more or less unalterable, because that work must be done if the competitions go on. Whether a lesser number of men are employed, or not, practically the same number of ships of the combatant class, except battleships, would be continued under the operating force plan for the 65,000 strength Navy. There is practically no change among the ships for which prize money is paid, except in the battleship class.

Mr. KELLEY. For the establishment and maintenance of shooting galleries, target houses, targets, and ranges how much do you estimate?

Captain WATTS. We have been obliged to reduce that to \$15,000. Our usual expenditure has been about \$25,000. We already have had to close several ranges and to so greatly reduce the allotment for the upkeep of others that we are just about on the ragged edge of discontinuance now.

Mr. KELLEY. What ranges have you closed?

Captain WATTS. We discontinued the allotments for the ranges at Philadelphia and Great Lakes, and have entirely closed the rifle range at Maguinao, near Olongapo, P. I.

Mr. KELLEY. What was the first one you mentioned?

Captain WATTS. Philadelphia. There is personnel at all of those stations that we would like to have the opportunity to continue firing.

Mr. KELLEY. You will have the men on shipboard where they can have better training?

Captain WATTS. No, sir; we can not give them complete small-arms training on the ships.

Mr. KELLEY. You can at Guantanamo?

Captain WATTS. Yes, sir.

Mr. KELLEY. You have a good range down at Hampton Roads?

Captain WATTS. No, sir.

Mr. KELLEY. I thought there was one a few miles away from Hampton Roads.

Captain WATTS. We had one there during the war, but that has been discontinued.

Mr. KELLEY. You have discontinued the range at Virginia Beach?

Captain WATTS. Yes, sir.

Mr. KELLEY. You have turned that back to Virginia?

Captain WATTS. Yes, sir.

Mr. KELLEY. For hiring established ranges and for transporting equipment to and from ranges, you estimate what?

Captain WATTS. We estimate \$4,000 for that.

Mr. KELLEY. That makes up the \$95,000?

Captain WATTS. Yes, sir.

Mr. KELLEY. That is all that the Bureau of the Budget estimated for this purpose?

Captain WATTS. Yes, sir. There is an additional clause requested for inclusion there to meet an immediate and unforeseen situation, and which will go far to make up any savings that may result from a lesser number of battleships competing.

Mr. KELLEY. "Including the services of one technical photographer." Where is he employed?

Captain WATTS. In the laboratory. He is needed for the photographic work in plotting the results of target practice. Many of our codes are based upon photographic records.

Mr. KELLEY. He should be in the civilian force of the department.

Captain WATTS. Yes, sir.

Mr. KELLEY. And not under this item.

Captain WATTS. That is the way it was provided for. There is no other office on a similar basis.

Mr. KELLEY. We can put it in the civilian part of the bill.

Captain WATTS. One other office has a similar situation, and it was for that reason that the Budget Officer directed that I include it this way. This is a technical man.

Mr. KELLEY. You have somebody doing that work now?

Captain WATTS. No, sir; not at present.

Mr. KELLEY. This is a new position.

Captain WATTS. No, sir; the same services have been obtained at intervals in the past. We have accomplished it by either farming out the work or by having it done in offices that have similar employees. Some of the time it was being done at the navy yard, and at times it was being done by enlisted men.

Mr. KELLEY. You want to create this one position?

Captain WATTS. Yes, sir; it is an absolute continuing necessity. The work is now of a continuous character.

Mr. KELLEY. We will put it over in the civilian list. I suppose all photographers are all more or less specialists?

Captain WATTS. Yes, sir. This is different only to the extent that he has to be trained in making and analyzing pictures of the splashes and shots.

Mr. KELLEY. This photographer has special training in the making of that sort of pictures?

Captain WATTS. Yes, sir; in the making and analysis of target practice pictures.

Mr. KELLEY. You can carry this work on without creating this special place, but you would rather have it done this way?

Captain WATTS. We can not do it without some expedient, which does not now suggest itself. There is nobody doing the work now, and we are in a very desperate situation. The Secretary is aware of the need for our relief, but no means have been found to afford it yet.

THURSDAY, MARCH 16, 1922.

BUREAU OF YARDS AND DOCKS.

STATEMENTS OF REAR ADMIRAL L. E. GREGORY, CHIEF; LIEUTENANT COMMANDER WARREN, LIEUTENANT COMMANDER ROUZER, AND MR. SMITH.

NAVY YARD, PORTSMOUTH, N. H.

Mr. KELLEY. Gentlemen, we have with us this morning. Admiral Gregory, Chief of the Bureau of Yards and Docks, and his assistants.

CONSTRUCTION OF BRIDGE.

On page 113 of this draft of the bill is the first item, "Navy yard, Portsmouth, New Hampshire: To aid in construction of bridge connecting city of Portsmouth, New Hampshire, with navy yards at Kittery, Me., to complete, \$250,000." Please tell us the status of that bridge.

Admiral GREGORY. That bridge is being built in conjunction with the States of Maine and New Hampshire, those two States with the United States Government, each paying one-third of the cost. The foundations of this bridge are now completed and work is now underway on the superstructure. The amounts appropriated to date will probably be insufficient to meet the obligations that will be incurred up to the end of the current fiscal year. It is expected that the entire bridge structure will be completed by December, next. It is therefore proposed to put in the remainder of the balance required to complete, the entire amount of the appropriation, \$250,000.

Mr. KELLEY. Did we agree to pay one-third, not to exceed a certain sum?

Admiral GREGORY. That, I think, is the understanding.

COST OF BRIDGE.

Mr. KELLEY. How much was the cost of the bridge? In the appropriation bill for the fiscal year 1921 there appears this item:

To aid in construction of bridge connecting city of Portsmouth, N. H., with navy yard at Kittery, Me., \$500,000, of which \$250,000 is hereby appropriated: *Provided*, That an equal amount shall be expended concurrently for the same purpose severally by the States of Maine and New Hampshire, the location to be approved by the Secretary of the Navy for convenient access to the Portsmouth Navy Yard.

We agreed to put up \$500,000, I see.

Admiral GREGORY. Yes, sir.

Mr. KELLEY. We have already appropriated \$250,000?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. It will all be needed this coming year?

Admiral GREGORY. It will all be needed by the end of the calendar year.

And each of the States have contributed also?

Yes, sir. I understand the total amount of the three bodies.

dmiral GREGORY. As nearly as I can figure, they have now oblinded everything except a few thousand dollars, but there will, perhaps, be some contingencies that always have to be met in such a nature as that, so I do not think it is wise to reduce that any, and any money is left over at the end, the money will be turned back.

r. KELLEY. There may be a few thousand dollars?

dmiral GREGORY. Yes, sir; I do not think it is wise to make any action.

NAVY YARD, NEW YORK, N. Y.

SPRINKLER SYSTEM.

r. KELLEY. The next item is, "Navy yard, New York, N. Y.," you want a sprinkler system in mold loft, \$18,000? Can not get along without any more improvements in the yards on the Atlantic this year?

dmiral GREGORY. It is probably true that almost nothing is added for the eastern yards this year.

r. KELLEY. This is fire protection?

dmiral GREGORY. Yes, sir; it is simply a question of whether it is advisable, in view of the fact that we have a vast amount of inflammable materials stored in the mold loft, to omit the sprinkler system; simply a protective measure.

r. KELLEY. How long has the building stood there; is it a new or old building?

dmiral GREGORY. This building was completed in 1919. There are stored in the building also patterns and framing for ships that have recently been built, and they have decided that although they think it desirable to have the sprinkler system over the entire mold loft, this covers only about one-half, that being the portion that they think is absolutely necessary.

r. KELLEY. It has been used for a mold loft right along?

dmiral GREGORY. I understand it has.

r. KELLEY. This is fire protection and ought to take care of other things that are stored there?

dmiral GREGORY. They being of great value and stored in this place, it is considered proper to have fire protection.

NAVY YARD, PHILADELPHIA, PA.

DREDGING, ETC.

r. KELLEY. The next item is, "Navy yard, Philadelphia, Pa.," dredging, \$75,000. Where is that dredging?

dmiral GREGORY. That, I understand, is routine, and usually has been done there from time to time in order to maintain the depth which is necessary to get the ships in and out.

r. KELLEY. Is that dredging the Schuylkill River so as to get the back basin?

dmiral GREGORY. Into the Schuylkill and into the reserve basin, entrance to the reserve basin.

r. KELLEY. My recollection is that you get into the basin through the Schuylkill River?

Mr. KELLEY. When was the last time we appropriated for doing there?

Mr. KELLEY. Is dredging always carried as a special appropriation for all the yards?

Mr. KELLEY. Could you do this out of the lump sum?

Mr. KELLEY. Are you doing any dredging this year?

Mr. KELLEY. Is it the idea to enlarge the basin?

Admiral GREGORY. No, sir; simply to provide against the
which has been accumulating and which accumulates continually

PILE CAPS, WAYS NOS. 2 AND 3.

Admiral GREGORY. Those ways are the ways on which are under construction two of the battle cruisers, upon which work has been stopped.

Mr. KELLEY. You will not need that?

Admiral GREGORY. The only point is whether those ways will be required. They can not even go ahead and complete the battleship cruisers unless we repair the ways.

Mr. KELLEY. If needed, we can provide for them.

Admiral GREGORY. Except you might need them in an emergency.

Mr. KELLEY. You would not need them this year?

Admiral GREGORY. This year, I would not think we would.

NAVY YARD, NORFOLK, VA.

TO CONTINUE WATER-FRONT IMPROVEMENTS.

fr . E LEY. The next item is "Navy yard, Norfolk, Va.: Wa
improvements, to continue, \$75,000." Is that to finish the

Q. That will not finish the
ace to stop. I
should

...work, but it's quite an extensive job to bring that y

o a state of completion, but the money gave out at a point where they did not have a good stopping place. This is simply to piece out a small portion and then it will leave it so it can be protected.

Mr. KELLEY. When we gave you \$250,000 last year we did not give quite enough?

Admiral GREGORY. Not quite enough.

Mr. KELLEY. This brings the improvement down to the slip?

Admiral GREGORY. To the pier.

Mr. KELLEY. This will complete and make effective what you have done heretofore down there?

Admiral GREGORY. That is the idea; yes, sir.

NAVY YARD, CHARLESTON, S. C.

TO CONTINUE DREDGING.

Mr. KELLEY. The next item is "Navy yard, Charleston, S. C., dredging, to continue, \$36,000."

Admiral GREGORY. That is a yard where dredging has to be done practically every year if the intention is to keep the bottom down to such a level as to use the yard.

Mr. KELLEY. In front of the dry dock, as I remember it?

Admiral GREGORY. The dry dock and piers.

Mr. KELLEY. You have to keep that dredged out?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. This stuff comes down the Cooper River to right in front of the dry dock?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. You had submitted an estimate of \$40,000 less than last year?

Colonel ROOSEVELT. Yes, sir.

Admiral GREGORY. Yes, sir.

NAVAL STATION, KEY WEST, FLA.

DEVELOPMENT AND COMPLETION OF SUBMARINE BASE.

Mr. KELLEY. What about the situation at Key West? There has not been any estimate submitted, but I want to know about the situation there?

Admiral GREGORY. That work has been contracted for and it is expected that it will be completed during the present calendar year. They have been building a breakwater, and behind that breakwater a number of piers alongside of which they will have ample room for tying up quite a fleet of submarines. The former Chief of the Bureau of Yards and Docks, Admiral Parks, was down here on a tour recently and submitted a report on the conditions in which he finds that the work has been progressing fairly satisfactorily.

Mr. KELLEY. What are they doing?

Admiral GREGORY. At the present time they are putting riprap on the inside of the breakwater to protect it from the further wash of the sea.

Mr. KELLEY. What is riprap?

Admiral GREGORY. Broken stone; broken corral is in that case.

Mr. KELLEY. The covering that they expected to use was not successful?

Admiral GREGORY. They tried marl, in fact, that is what is going on at the present time, but it is felt that the marl is not good at that location, it did not meet the expected results and it was not quite good as the marl they had in other portions of Florida.

Mr. KELLEY. This will hold the improvement from washing back so that we will not have to put in any more money?

Admiral GREGORY. Yes, sir; it is hoped that it will not be necessary to ask for any more money. The work is going ahead now and the report very good progress.

NAVAL STATION, GUANTANAMO, CUBA.

ADDITIONAL DISTILLING FACILITIES.

Mr. KELLEY. Have you put in the additional distilling facilities at Guantanamo?

Admiral GREGORY. They have not been installed. They have been working up the plans and specifications. An award has been made, but it is expected to be made at an early date.

NAVY YARD, MARE ISLAND, CALIF.

MAINTENANCE OF DIKES.

Mr. KELLEY. The next item is "Navy yard, Mare Island, Calif." We have some new estimates from the Bureau of the Budget at Mare Island, amounting to \$2,650,000.

Colonel ROOSEVELT. It is the teredo, which has been destroying the piles.

Mr. KELLEY. Mr. Curry, a Member of the House from California is present, and I would be glad, and I think the committee would be glad, to have Mr. Curry make a general statement with reference to the situation at Mare Island.

THURSDAY, MARCH 16, 1923.

STATEMENTS OF HON. CHARLES F. CURRY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND DR. J. J. HOGAN.

Mr. CURRY. The Chief of the Bureau of Yards and Docks can explain this situation from the technical standpoint much better than I can.

Mr. KELLEY. He will do that.

PRESENT CONDITION OF DIKES.

Mr. C. You will remember that a year ago the subcommittee reported that if the proper shore line was probably

I appeared before the committee and we were not put in time and it was the dikes in the

an it would if they were put in shape then. In your appropriation year ago for the maintenance of yards and docks you intended to include enough money to take care of this proposition.

Mr. KELLEY. In the lump sum?

Mr. CURRY. Yes, and Admiral Parks, at my request, came before our committee a second time and told you he would do this, as you will remember. After that Admiral Parks was taken sick and the work was not done. One thousand feet or more of the dike has gone out and it will all go unless it is replaced in the near future. The condition of the dikes is caused by four dry seasons, practically none in at all falling in that part of California. The result was that the bay and the channel, as well as the Napa River, instead of being fresh water was salt water, and the teredo, which can not live in fresh water, went up through the channel and destroyed the piling. It is not likely there will be another four dry years in California for the next 50 years and maybe never. The teredo can not live in fresh water; it lives in salt water. This dike piling was put in 19 years ago and it was expected to last about 15 years, but notwithstanding the teredo it lasted two years longer than it was originally estimated to last by the Bureau of Yards and Docks, and it would probably have lasted six or seven years longer if the teredo had not gotten in there. It will cost two million and a quarter dollars to replace these dikes and put them in shape so as to make them absolutely safe, and unless they are replaced about \$40,000,000 worth of Federal equipment will be in jeopardy.

The appropriation has the approval of the commandant at the yard, Admiral McKean, of Captain Cox, the chief engineer of the sixth naval district, of the Bureau of Yards and Docks, the Secretary of the Navy, the Assistant Secretary of the Navy, and the Budget Bureau.

I expected that this item would be included in the original budget, and it was recommended by the Bureau of Yards and Docks, but not so much as this. However, the Budget Bureau cut the appropriation down to such a low point that it might as well not be appropriated, because it would be like throwing money away.

I am sorry the condition is as it is, but it is exactly as I told you it would be a year ago unless these dikes were repaired, and if they are not repaired now it will probably cost twice as much to replace them.

PINOLE SHOALS—MARE ISLAND CHANNEL.

We have a 35-foot project below low water, being cared for by the Army Engineers, through the Pinole Shoals, the Mare Island Channel, and the turning basin.

Mr. KELLEY. You mean they are dredging a channel up to Mare Island which will have 35 feet of water?

Mr. CURRY. It was 35 feet before these dikes went out, as well as through the Pinole Shoals. While these dikes were in, the depth was being maintained, and it had really gone to a 36-foot depth below low water through Pinole Shoals. The Chief of Engineers told me that the information he had from the coast showed that they could maintain the Pinole Shoals depth without using a dredger over two weeks in a year.

Mr. KELLEY. Is that the difficult point in this channel, from San Francisco up to the yard and through the Pinole Shoals?

Mr. CURRY. The difficult points are the Pinole Shoals and the channel.

Mr. KELLEY. How deep is the channel?

Mr. CURRY. It was 35 feet before the dike went out. Of course, there is another project for using the point of the island, at which place there is a minimum depth of 50 feet, but if these dikes are maintained two weeks of work a year with a dredger will maintain a 35-foot depth all the way up, but if these dikes are not replaced soon the channel will shoal up materially. In some points it has shoaled up to 26 feet now.

Mr. KELLEY. These dikes prevent the silt from coming down from what place?

Mr. CURRY. Here is a photograph of the dikes and these are the dikes [indicating]. There is a 6-foot tide and the water runs back and forth. The flow of the river and the action of the tide fills back of these dikes.

Mr. KELLEY. Which way does the current flow?

Mr. CURRY. It flows this way and then comes back in through here [indicating]. The mud back there has resulted in making a great deal of land.

Mr. KELLEY. With these dikes being out the mud fills in the channel?

Mr. CURRY. Yes; it starts in from here [indicating].

Mr. KELLEY. Is this the way down to San Francisco [indicating]?

Mr. CURRY. No; this is the way down to San Francisco Bay [indicating].

Mr. KELLEY. How do you mean?

Mr. CURRY. Down this way [indicating], and here is Mare Island and Napa River [indicating].

Mr. KELLEY. Where does the mud come from?

Mr. CURRY. It is washed back from the hills.

Mr. KELLEY. It does not come from any stream but it comes down with the rains from the hills into this place here [indicating]?

Mr. CURRY. Yes, sir; it comes down here [indicating] and instead of going on out, when the tide comes back it is put back in here [indicating].

Mr. KELLEY. By reason of the return of the tide?

Mr. CURRY. Yes, sir.

Mr. KELLEY. You say a 35-foot channel can be maintained from San Francisco all the way up to the yard by two weeks' of dredging a year?

Mr. CURRY. Yes, sir.

Mr. KELLEY. Who told you that?

Mr. CURRY. The Chief of Engineers of the Army, or the Assistant Chief, Colonel Taylor.

Mr. KELLEY. How many feet of dikes are there, or perhaps the engineer can tell us?

Mr. CURRY. Admiral, how many miles of dikes would you say—about 3 miles?

Admiral GREGORY. One dike is nearly 3 miles long.

Mr. DAVIS. Where is Mare Island as shown on this photograph?

Mr. CURRY. Right in here [indicating].

Mr. BYRNES. Where is the yard?

Mr. CURRY. Right there [indicating].

Mr. KELLEY. And this is—

Mr. CURRY (interposing). Napa River and the channel.

Mr. BYRNES. San Francisco is up this way?

Mr. CURRY. Yes, sir.

Mr. BYRNES. When the tide comes in and then goes out, your theory is that it washes mud in there, or does that mud come from up in here [indicating]?

Admiral GREGORY. The mud is carried in suspension by storms which come down this stream and down this one [indicating] and it is deposited; as soon as the tide slackens and the water stands, then this mud settles; it will not settle as long as it is in motion, but it will settle anywhere it happens to be at the time the tide is on the turn. When you get slack water, then is when you get the deposition of this material in suspension.

NECESSITY OF DIKES FOR MAINTENANCE OF CHANNEL.

Mr. BYRNES. And your idea is that by maintaining this dike the mud is brought down in here [indicating]?

Admiral GREGORY. Yes; for the reason that the current is directed by means of this dike so that the water comes in and out here [indicating], and this is dead water; therefore, where the water is dead the mud settles, and it will settle here, too [indicating]. Just as soon as you have a turn in the tide, but just as soon as the tide changes and it begins to flow again that material, being freshly deposited, will be carried out, because of the current in the channel.

Mr. KELLEY. Where are the navy yard approaches, the piers?

Admiral GREGORY. They are right on the northerly side. Here is plan of the yard. You should really orient this plan and the photograph together in order to get a good idea of it. That is the way it follows the channel, and here is the Mare Island water front.

Mr. KELLEY. You come up from San Francisco this way [indicating]?

Admiral GREGORY. Yes.

Mr. KELLEY. And you turn up in there to go to the navy yard?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. What is this stream?

Admiral GREGORY. That is the Napa River.

Mr. KELLEY. And the navy yard is on this tongue of land here [indicating]?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. But the entrances are all on that side [indicating]?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And just across the river is Vallejo, the residence part of that establishment?

Admiral GREGORY. Yes, sir.

Mr. DAVIS. What is the width of the land there?

Admiral GREGORY. The land along in here [indicating] is nearly a mile in width.

Mr. CURRY. There are 1,400 acres there and there is a lot in here that belongs to the Government, land that is being made.

Mr. KELLEY. Where is this dike on this map?

Admiral GREGORY. Here is this long dike, that is, the long dike that is shown on this drawing 2, and that is the one that is giving away by reason of the teredo eating into the timber and weakening it, and at the same time the accumulation of material behind this has been so great in the past that there is considerable pressure on the rear side of the timber, so that with the weakening and increase in load and pressure on the back a lot of that has gone out.

AMOUNT OF DIKES TO BE REPLACED.

Mr. KELLEY. Will it be necessary to replace the entire dike?

Admiral GREGORY. Not if we can start repairs immediately; the whole proposition is to start repairs before the entire damage is done.

Mr. KELLEY. How much of it is to be replaced with this \$2,250,000?

Admiral GREGORY. There will have to be nearly 1,000 feet of timber work rebuilt. The exact amount can only be ascertained as the work of repairs proceeds.

Mr. KELLEY. You intend to use timber?

Admiral GREGORY. Creosoted timber; but the entire length will have to be protected with riprap, such as we described for the Key West condition, in order to keep that timber from going out. So we propose to keep as much as now remains intact by putting riprap on the face of it so it will still be maintained.

Mr. KELLEY. Could you make all of that improvement in one year?

Admiral GREGORY. It could be done and we would do the most of it in one year, but it ought to be done under one contract in order to step in just as soon as we find a place threatens to go out; we would want to be in a position to step right in and save anything that started to go out. We would start with the places that have already gone out and rebuild them and at the same time work on the places that are threatening to go out. The proposition is to protect the whole of each one of those dikes all the way through.

Mr. CURRY. We are not asking for any development of the Mare Island Navy Yard at this time; we are simply asking that what is there be taken care of, and if the \$300,000 that I suggested, and was estimated by the engineer officer out there, had been used last year it would not be necessary to use so much money now. I told you then that if the money was not used at that time it would cost ten times as much this year, and if the money is not appropriated this year it will be twice as much next year.

AMOUNT TO BE EXPENDED FOR REPLACEMENT THIS YEAR.

Mr. KELLEY. How much do you estimate you would expend this coming year?

Admiral GREGORY. We would probably have to spend at least half of the total cost which we now estimate should be appropriated, so we are recommending in this appropriation that one half be immediately available, but permitting a contract to be made for

entire amount, meeting the other half by an appropriation to made next year.

Mr. KELLEY. We would not want to appropriate more than you would normally expend during the year.

Admiral GREGORY. I think we would actually expend that much.

Mr. KELLEY. I suppose a limit of cost might be fixed and then appropriate what you would need?

Admiral GREGORY. Yes.

Mr. FRENCH. Would that take care of awarding a contract for the whole amount?

Admiral GREGORY. Yes. I have some recent photographs which show the distressing condition there, and if you will glance over them you will find there is something there which we can not very well ignore.

Mr. KELLEY. We could put in the bill a limit of cost of \$2,450,000, one-half of that to be immediately available, and appropriate the balance when it was needed.

NECESSITY FOR IMMEDIATE REPLACEMENT OF DIKES.

Colonel ROOSEVELT. Admiral, am I not correct in stating that if you do not take care of this now there is a very grave chance of the whole business going out and rendering the yard useless until it is fixed up?

Admiral GREGORY. That is one of the big probabilities; I would not say it is a possibility, but it is more than a probability, and it is so probable that result will be accomplished within about two years.

Mr. FRENCH. Then there is another thing I want clear. It would not be, assuming that should occur, a question of building dikes in another year or two or three years, but a question of dredging that work could be avoided provided the dikes are now built.

Admiral GREGORY. Yes, sir.

Mr. FRENCH. Is that the way you want it understood?

Admiral GREGORY. Not only dredging but also the cost of rebuilding the dikes. If we can step in now we will have to rebuild those places where they have gone out, as you have noticed from some of these photographs, and the remainder we will preserve intact by reason of the riprap which we will place in front of them, but if we wait until it is all carried out then we will have to rebuild everything; we will have to redredge everything, and we will also, in the meantime, have crippled the navy yard, because the deeper-draft ships will not be able to go up there, and also the commercial interests, which have reason for ships entering that channel, will probably be blocked.

Mr. FRENCH. Then where you are riprapping, supposing the appropriation should be made, will that save, opposite the parts of the yard where you are riprapping, the question of dredging?

Admiral GREGORY. That will save the dredging and also save the rebuilding of your dike.

Mr. BYRNES. Where is your submarine base?

Admiral GREGORY. We have only a minor submarine base there, but there is a submarine base in southern California.

Mr. FRENCH. San Diego, I believe.

Admiral GREGORY. No; San Pedro, where a portion of a municipal pier is used under permit from the city.

Mr. CURRY. If the committee should authorize the full amount and make one-half immediately available, would that be satisfactory at this time?

Admiral GREGORY. Yes; that is precisely what we have recommended.

REBUILDING OF WHARVES AND WALLS.

Mr. KELLEY. Why do you divide this into two parts, maintenance of dikes and dredging and rebuilding wharves and quay walls?

Admiral GREGORY. I found that division in the bill and I do not know just why it was made, except that it is special work.

Mr. KELLEY. So we could strike out \$150,000 if we put in for maintenance of dikes and dredging whatever sum we see fit, and that will cover the whole thing, will it?

Admiral GREGORY. No, sir; you will also have to include an item for rebuilding wharves and quay walls.

Mr. KELLEY. Maintenance of dikes and dredging and rebuilding wharves and quay walls?

Mr. CURRY. If you put that in the item it will cover it.

Mr. FRENCH. If the item of \$200,000 should be increased by whatever amount we propose for the work you recommend, that will take care of the situation?

Colonel ROOSEVELT. Provided it is enumerated in that way.

Mr. FRENCH. What I mean is, do we need any new language?

Colonel ROOSEVELT. I should not think so.

TOTAL APPROPRIATION MARE ISLAND NAVY YARD.

Mr. KELLEY. Let us get this straight. This bill carries \$150,000 for one item and \$200,000 for another, making \$350,000. The supplemental estimate reads like this:

Supplemental estimate of appropriation for the Navy Department for the fiscal year ending June 30, 1923, for the Naval Establishment, public works, Bureau of Yards and Docks: Navy Yard, Mare Island, Calif., \$2,450,000.

Then there are some other items, and below it says:

These items are in addition to the amounts included in the Budget.

So that would be \$350,000 added to \$2,450,000, or \$2,800,000. Is that your understanding of the need of this place or is this supplemental estimate in lieu of the other?

Admiral GREGORY. This is in lieu of the other.

Mr. CURRY. That supplemental estimate, Admiral, was in addition to the other, as you will find if you will read the recommendations to the Budget Bureau and your recommendations to the Budget Bureau.

Admiral GREGORY. The idea is that in the bill as it is prepared to date you have two separate items. In view of the fact that the work is almost identical in nature in the two items we propose a rewording in which the total amount for both the dikes and the wharves will be covered by one item.

Mr. KELLEY. Is it \$2,450,000 or \$2,800,000?

Admiral GREGORY. \$2,800,000 would be the total in lieu of the as that are now in the bill.

Mr. KELLEY. You stated a moment ago that this was not in addition but in lieu of the other.

Admiral GREGORY. It is in addition.

Mr. KELLEY. If the \$2,450,000 asked for in the supplemental estimate is in lieu of what is in the bill, then the amount asked for is \$50,000; if it is in addition to what is in the bill, then the sum is \$2,800,000, and we want to be clear which it is.

Admiral GREGORY. The total asked for is \$2,800,000, but you do not need it all appropriated for this year; approximately one-half to be available this year would be all that you could expend, in all probability, during this year.

Mr. KELLEY. How much of the \$2,800,000 estimate will be needed for the rebuilding of these dikes?

Admiral GREGORY. The dikes will take about \$1,300,000.

Mr. KELLEY. And what do you want to do with the rest of it?

Admiral GREGORY. The rest of it represents the rebuilding of the wharves and quay walls. That will be \$1,500,000.

Mr. KELLEY. Where are those wharves and quay walls?

Admiral GREGORY. They are along the northerly water front of the New Island yard proper.

DESTRUCTION OF WHARVES AND QUAY WALLS BY TEREDO.

Mr. KELLEY. Are they in danger of being destroyed by this same tereedo?

Admiral GREGORY. Absolutely; they are now in such a weakened condition that the commandant has absolutely prohibited all use of a vessel on a considerable proportion of the yard water front; it has been prohibited because it is known to be on the eve of going in.

Mr. KELLEY. What is this tereedo; is it an animal or a vegetable?

Admiral GREGORY. It is a little marine animal, a bivalve, which starts in its infancy just like a grain of sand; it adheres to the edge of the pile and begins boring into the pile, and when it begins to eat it also begins to grow, and it continues in growth, so that I have seen tereedo as long as 4 feet and as thick through as my thumb.

REASON FOR INCREASED ESTIMATES.

Mr. KELLEY. Who made these estimates?

Admiral GREGORY. They were prepared at the yard and checked over at the Bureau of Yards and Docks.

Mr. KELLEY. This situation is not anything new to you, of course, because we heard about it last year. How is it you did not include a proper amount for this work in the original estimates?

Admiral GREGORY. I think there is no reason for criticism, because the fact is that the enormity of this question has not been realized until within the last few months, and at the time the estimates were submitted for the making up of the Budget last fall it was not known that the condition was so serious; it was recognized, of course, and that is why the estimate appears in the bill, but the enormity of it was only begun to be realized within the last few months. When I came into office I found that papers were accumulating which indi-

cated a very serious need and I appointed an informal board, in the bureau, of engineers, most of whom had had duty at that station and were familiar with the conditions, and a report was finally submitted to me, which has been examined and found to represent a condition so serious in nature that it was forwarded to the Secretary of the Navy, and both the Secretary and the Assistant Secretary realized that conditions were such that they could not be suppressed, that the conditions should be made known to you gentlemen and an effort made to provide for the upkeep of those structures. That, briefly, is the reason for making the amount as it now stands.

DEPTH OF CHANNEL AFTER IMPROVEMENTS.

Mr. KELLEY. What is your information about this channel from San Francisco up to the yard when these necessary improvements are made?

Admiral GREGORY. All the information we have is to the effect that these dikes have been very successful in maintaining the channel to the desired depth, and they have been so successful that I do not feel it wise or proper to make any experimentation by deviating from those lines.

Mr. KELLEY. If we make this improvement then we have insured a channel from San Francisco to the Mare Island yard at low water of 35 feet?

Admiral GREGORY. Not at low water; no sir; at mean high water.

Mr. KELLEY. What do you say about this channel, Mr. Curry?

ARMY APPROPRIATION FOR MAINTENANCE OF CHANNELS.

Doctor HOGAN. The project of the Army is 35 feet, if the appropriation is made to keep it at 35 feet. That is the understanding of the Army engineers—at low water.

Mr. KELLEY. Has that ever been done so far?

Doctor HOGAN. We have places in the channel where it is.

Mr. KELLEY. I am talking about the whole business from San Francisco up to the yard. Is there money appropriated which will keep the channel at 35 feet if we make this improvement?

Doctor HOGAN. Yes, sir; that is in the Army bill.

Mr. KELLEY. Is that your understanding?

Admiral GREGORY. That is the way I understand it; yes, sir.

Mr. KELLEY. And we get away from all questions of this yard being insufficient for the large ships if this project is carried out and if the Army carries out its project?

Mr. CURRY. And also in such dredging as will be necessary from year to year, right in front of the yard, because that will have to be done to get the proper depth to handle the ships.

Mr. KELLEY. That is an annual charge, a modest charge, of \$50,000 or \$75,000?

Mr. CURRY. Yes, sir.

Mr. BYRNES. The Army bill does not specify this particular project, to make this project a certain depth; it does not specify any particular project; it is in a lump sum?

Mr. CURRY. No; for Pinole Shoal, Mare Island Strait, and the turning basin, \$100,000.

Mr. KELLEY. This covers the entire channel where there are any difficulties?

Mr. CURRY. Yes, sir.

Mr. KELLEY. We want to make that clear, that we are not throwing money away.

Mr. CURRY. I would not ask for it.

Mr. KELLEY. I know you would not. We want to be sure that there is cooperation with the other branch of the Government to make this money effective?

Mr. CURRY. That is what I had in mind; yes, sir; there is.

Mr. KELLEY. There is no dispute about that at all, Admiral?

Admiral GREGORY. I know of none at all.

Mr. KELLEY. You do not know of any, Colonel?

Colonel ROOSEVELT. No. I would like, Mr. Chairman, to go into this matter a little more thoroughly and be prepared to report at a later date.

Mr. KELLEY. I do not think that our committee wants to go before the House with an expenditure of \$2,400,000 with the uncertainty which sometimes has surrounded these situations as to whether or not after the appropriations were made you could get the ships there.

Colonel ROOSEVELT. I will tell you, as far as the general situation is, that I am absolutely willing to go strong on record that unless this expenditure is made the Mare Island yard will be rendered largely useless, in all probability.

Mr. KELLEY. I want to go further than that. I want to be able to say that if we make this expenditure to protect these dikes and works with the normal amount of dredging which naturally goes with this project of this kind that there are projects under way under the jurisdiction of the Army.

Colonel ROOSEVELT. I would have to look that up.

Mr. KELLEY. Making this channel 35 feet, so the yard can be used for all the ships of the Navy, regardless of size.

Mr. OLIVER. Does not that condition obtain now? The work you have in contemplation that the War Department will do is largely for the maintenance of the channel?

Colonel ROOSEVELT. No; that condition does not obtain now.

Mr. OLIVER. To what extent does it not?

Colonel ROOSEVELT. I can not tell you offhand.

Mr. KELLEY. This is quite a controverted subject, and unless you have looked into it quite a bit—

Colonel ROOSEVELT (interposing). That is why I did not want to make a definite statement on the situation until to-morrow; but the statement stands. If this improvement is not made, the Mare Island yard will be largely rendered useless for the Government.

Mr. KELLEY. Of course, Mr. Curry is very familiar with this situation, and I know that the information he gives is absolutely as accurate as anybody can give, that the Army has the money and the plans are all in process of being carried out to make this an effective channel the way from San Francisco to the Mare Island Yard at 35 feet of water.

Mr. CURRY. Not only that, but the Army has already provided a channel. It has to be dredged every year to a certain extent—I think it has been \$100,000 a year. I think they can maintain it by expenditure of about \$75,000.

Mr. KELLEY. Until this happened, there was no difficulty to keep the channel?

Mr. CURRY. Not in maintaining the channel. My recollection is that the local officer, Captain Cox, and Admiral McKean and before him Captain Beach, recommended the usual expenditure for the dikes and quay walls. Their recommendation was not acted upon favorably either by the Navy Department or by the Budget. I think the Budget cut out even the recommendation of the Navy Department.

Colonel ROOSEVELT. Yes, sir.

Mr. CURRY. They did that without any knowledge, simply using pencil.

Mr. BYRNES. I want to call your attention to the fact that, as I stated a while ago, the Army bill as reported does not specify a project at all.

Mr. CURRY. The Army bill as reported has \$27,000,000 in a lump sum.

Mr. BYRNES. Yes, sir; for maintenance of existing river and harbor works.

Mr. CURRY. The Army at present has about \$200,000 for this project, which it is saving for this project, and which it does not wish to divert to any other project. Under this lump-sum appropriation of \$27,000,000 the Army in this case will allocate to this project a sufficient amount of money to maintain the 35-foot depth.

Mr. BYRNES. I should like to call your attention to the fact—

Mr. CURRY (interposing). In the recommendation of the Navy Department they recommended itemized statements for the different projects, but the Budget Bureau put in a lump sum of \$27,000,000 and some odd thousands.

Mr. BYRNES. They first submitted \$42,000,000?

Mr. CURRY. Yes, sir.

Mr. BYRNES. They reduced it to \$27,000,000 and some of the projects will have to be reduced to bring it down to \$27,000,000. You are relying on what they have said. I think you better see the engineers to make sure the allowance will be made.

Mr. CURRY. I know that a sufficient amount for this purpose will be allocated by the Army Engineers, because it is one of the most important Government projects which we have.

Mr. OLIVER. If there should be doubt as to the Army doing it, Mr. Curry feels sure they will do, it could be guarded against in the same way that this committee has previously guarded some appropriations by putting a proviso of that kind—you remember the proviso was done in reference to the Charleston Dock, and the same language that we then used could be inserted, being conditioned upon the fund being allocated and used for that purpose.

Mr. CURRY. They have enough money to take care of the channel; they have \$200,000 for that purpose.

Mr. BYRNES. That will maintain it for a year?

Mr. CURRY. Yes, sir. At the present time the channel has shoaled up in certain places on account of the dykes going out so it would probably require more money at this time, but they have enough money to replace the channel and to maintain it for a year and any time they need they can allocate out of the \$27,000,000.

EXCERPTS FROM ARMY HEARINGS ON CHANNEL.

Mr. KELLEY. I think it might be well to put into the hearings a few excerpts from the Army hearings on this proposition, and that will put them together. I read from page 1764 of the report of the engineers.

Mr. FRENCH. For what year?

Mr. KELLEY. 1921. [Reading:]

The existing project is about 25 per cent completed. The channel across Pinole Shoal was completed in 1914 under the existing project, and in addition the Navy department built a pile dike about parallel with the channel from the southwest point of Mare Island.

Is that the dike we are talking about?

Admiral GREGORY. Yes, sir.

Mr. KELLEY (reading):

This dike has materially benefited both the Mare Island Strait and the San Pablo Bay channels. During the past year the dredging work done by the *San Pablo* has increased the controlling depth in San Pablo Bay and Mare Island Strait channels from 26 to 29 feet, with a minimum width of 100 feet. There was a channel of full project width with a controlling depth at the end of the fiscal year of 32 feet over Pinole Shoal in San Pablo Bay and 35 feet in Mare Island Strait channel up to a point opposite dike No. 10.

The following work remains to be done.

Then it tells how much dirt has to be taken out to make the project complete.

Mr. CURRY. The project is 500 feet wide, the channel 35 feet deep, and the turning basin 1,000 feet. You will find that in there.

Mr. KELLEY. Yes, sir. It gives three parts of the work yet to be finished. [Reading:]

(a) To dredge Pinole Shoal Channel in San Pablo Bay from the present least depth 32 feet to project depth—total about 600,000 cubic yards.

(b) To dredge the channel in Mare Island Strait to project depth.

(c) To dredge a turning basin opposite the quay wall of Mare Island Navy Yard—total of (b) and (c) about 2,750,000 cubic yards.

Now, the proposed operations for this current year with the funds available.

Colonel ROOSEVELT. May I ask if that is for the coming year or the current year that we are in now?

Mr. KELLEY. The one we are in now. This was last year's report. [Reading:]

With the funds available at the end of the fiscal year it is proposed to continue the work of deepening the channel through San Pablo Bay and Mare Island Strait to full project depth and width, and to dredge a turning basin in Mare Island Strait. For this work it is proposed to use the hopper dredge *San Pablo*, belonging to this district, during nine months of the fiscal year 1922, and to operate the patrol boat *Suisun* by red labor to enforce fishing regulations and other regulations for the protection of navigable waters. The expenditures will be about as follows:

Now work:

Annual overhauling of dredge <i>San Pablo</i>	\$12,000.00
Operation and repairs to dredge <i>San Pablo</i> , 9 months, at \$10,000 per month.....	90,000.00
Pro rata cost of operation of patrol boat <i>Suisun</i> , 12 months, at \$250 per month.....	3,000.00
Engineering, superintendence, and contingencies.....	8,832.36
Total.....	113,832.36

With the funds then remaining (\$143,000), the following work is proposed for the fiscal year 1923:

New work:

Annual overhauling of dredge <i>San Pablo</i>	\$12,000.00
Operation and repairs to dredge <i>San Pablo</i> , 12 months, at \$10,000 per month.....	120,000.00
Pro rata cost of operation of patrol boat <i>Suisun</i> , 12 months, at \$150 per month.....	1,800.00
Engineering, superintendence, and contingencies, and office expenses.....	9,200.00
Total.....	143,000.00

No additional funds for the fiscal year 1923 are requested, as those on hand are believed sufficient for all urgent work during the fiscal year 1923.

WIDTH AND DEPTH OF CHANNEL.

So that puts up the proposition that the Army is going ahead with the project to complete it as it was originally planned, 35 feet deep and of a certain width.

Mr. CURRY. Five hundred feet wide.

Mr. KELLEY. If we make this improvement then we protect the channel from being filled in again and the yard then will have a clear channel to the Pacific of 35 feet in depth at low water?

Mr. CURRY. That is the project. Over Pinole Shoal there is more than 35 feet now.

Mr. OLIVER. I should like to ask the officer if he approves of that last statement that we will not have to spend money to maintain the channel?

Admiral GREGORY. Except for minor annual dredging. That is my understanding; yes, sir.

Mr. OLIVER. And you think that result will follow?

Admiral GREGORY. I do.

METHOD OF EXPENDING PROPOSED APPROPRIATION.

Mr. KELLEY. Now, \$1,300,000 is needed for the dike and of that amount how much can you use during the coming year?

Admiral GREGORY. Approximately one-half.

Mr. KELLEY. \$650,000?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Is the other expenditure of \$1,500,000 for the building of wharves and quay walls as urgent as the building of the dikes?

Admiral GREGORY. I consider it just about of equal importance, for the reason that only during recent weeks the commandant has felt it necessary to absolutely vacate certain walls because of their being undermined. He fears that the other walls and piers will go in the same way.

Mr. KELLEY. What is the total berthing space there of the wharves and walls?

Admiral GREGORY. The berthing space is about 11,000 linear feet.

Mr. KELLEY. Then this money you want, \$1,300,000, is not to extend those, but just to put them in proper condition?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. To rebuild and repair them?

Admiral GREGORY. To rebuild and repair where necessary.

Mr. KELLEY. How much can be expended profitably this coming year?

Admiral GREGORY. About one-half of that, although it all should be under contract so that we can place it together.

Mr. KELLEY. You are asking for an authorization of \$2,800,000 and an appropriation of \$1,400,000?

Admiral GREGORY. Yes, sir. I should like to have this made immediately available.

PORTIONS OF WALLS AND WHARVES IN NEED OF REPAIR,

Mr. KELLEY. What part of the 11,000 feet of walls and wharves need rebuilding; how much of it?

Admiral GREGORY. About 3,600 lineal feet of quay wall.

Mr. KELLEY. And how much of the wharves?

Admiral GREGORY. That is something—

Mr. KELLEY (interposing). So you have 7,400 feet of berthing space there that is all right?

Admiral GREGORY. It is not all right, because we know that the same forces are at work tending to destroy that section as well, and it is very likely that we will have to expend money on every lineal foot of quay wall in the yard. The 3,600 feet need attention immediately.

Mr. KELLEY. And the \$1,500,000 that you are asking for is to take care of the 3,600 feet?

Admiral GREGORY. To take care of the 3,600 feet and any of the rest that needs attention while we are at work.

Mr. KELLEY. But in your estimate you did not include that any of the rest would need attention?

Admiral GREGORY. We have not covered any in the actual figures.

Mr. KELLEY. This amount is based entirely on the repairing and rebuilding of the 3,600 feet?

REPORT OF BOARD.

Admiral GREGORY. Yes, sir. This is all very carefully covered in the report of the board to which I have referred heretofore, and I can submit a copy of that to you if you care to go over it and also insert a copy in the record.

FEBRUARY 13, 1922.

From: Board on Mare Island Navy Yard matters, Rear Admiral H. H. Rousseau (C. E. C.), United States Navy, senior member; Capt. F. T. Chambers (C. E. C.), United States Navy, member; Commander G. A. McKay (C. E. C.), United States Navy, member; Lieut. Commander H. D. Rouzer (C. E. C.), United States Naval Reserve Force, member; Mr. E. C. Sherman, member and recorder.

Subject: Board report on dikes and water-front structures damaged by teredo, and on water supply for Mare Island Navy Yard.

References: (a) Bureau of Yards and Docks order appointing board, January 21, 1922; (b) Review of teredo damage; (c) Notes on dikes and channel, history, development, and results; (d) Notes on construction and condition of quay walls; (e) Extracts from reports from yard on teredo damage; (f) Print showing location of dikes; (g) Blue print showing typical cross section, Dike 12; (h) Print showing location of water-front structures; (i) Photostat showing types of quay walls; (j) Photograph showing typical teredo damage to piles; (k) Water supply, navy yard, Mare Island, history; (l) Map showing Gordon and Wild Horse Valleys; (m) Map showing wells in Green Valley and in Suscol district.

Inclosures: (A) to (M), inclusive, same as references (a) to (m).

1. The board appointed by bureau order of January 21, 1922, inclosure A, to investigate and report with recommendations in regard to certain matters in connection with the United States Navy Yard, Mare Island, Calif., having completed its work, submits its findings herewith.

2. The two subjects mentioned in the bureau's precept are as follows:

(a) Condition of dikes and sea walls that have been damaged, principally by the teredo, and remedial measures that are necessary.

(b) Water supply for the navy yard.

These two subjects will be reported upon separately as follows:

3. (a) Conditions of dikes and sea walls that have been damaged, principally by the teredo, and remedial measures that are necessary.

The board's investigation of this subject has included an examination of the bureau files and of various reports on Mare Island, and on the hydraulics of Mare Island Strait and approaches, including the Biddle Board report of June 8, 1908; report No. 2 of the Commission on Navy Yards and Naval Stations, dated January 24, 1917; and report of special board of inspection of naval bases on the Pacific coast, known as the McKean Board, dated October 20, 1919. Three members of this board have first-hand information regarding local conditions, obtained while on duty at the Mare Island Navy Yard. One of these three members was a member of the Biddle Board and two of the same three are members of the Commission on Navy Yards and Naval Stations.

4. The condition on which the board is called upon to report has arisen from the presence of marine borers, principally the teredo, in San Pablo Bay and Mare Island Strait, within the last few years, that have attacked all wooden structures in those waters. Attention is invited to inclosures B and E relative to the damage done by these marine worms. Prior to 1913 the borers had never been reported in San Pablo Bay, and until September, 1919, there had been no evidence of damage from this source in Mare Island Strait proper, according to navy yard authorities. Naturally, therefore, up to that time all wooden structures, both in San Pablo Bay and Mare Island Strait had been constructed of uncreosoted material, as the increased cost of creosoted material would not have been justified.

5. The board has examined the recent reports in the bureau files on the condition of the dikes, sea walls, wharves, etc., at the Mare Island Navy Yard, from which it has learned that these dikes, quay walls, wharves, and various other waterfront constructions of untreated timber have been damaged to such a degree within the last two and one-half years that portions have already collapsed, and the bulk of the remaining works are in imminent danger of failure, which may be expected to occur without warning at practically any moment. This condition is a serious menace to life and property, and has necessitated placing certain portions of the navy yard waterfront structures out of commission.

6. The structures affected may, for the purposes of this report, be considered under three heads:

(I) Dike No. 12, extending out into San Pablo Bay;

(II) All other dikes in, and at the entrance of, Mare Island Strait that have been built by the Navy Department for the channel improvement;

(III) Quay walls, wharves, and other waterfront constructions that have been provided for berthing purposes and for similar operations connected with use of the waterfront.

These three items will be discussed separately as follows:

(I) *Dike No. 12.*—This is a timber dike, 8,430 feet long, extending out into San Pablo Bay from the south end of Mare Island. It was completed in 1912 at a cost of about \$35 per lineal foot. An immense amount of soft silt (estimated at millions of yards) has settled behind this dike, which acts as a dam in keeping it out of the channel. The difference in depth of water measured in front and on the back of the dike is understood to average from 18 feet to 20 feet. This dike has been so weakened by the teredo that it is in a very critical condition, and is in nowise capable of standing safely the static pressure of the mud against its inner face, much less the impact of waves. The failure of any considerable portion of this dike, which may be expected at any time, would be most disastrous, for not only would much of the soft mud, now retained behind this dike, slide into the main San Pablo Bay Channel on a very steep slope, but also the flood tides would carry large quantities of this silt through any break up into Mare Island Strait, where it would be deposited at slack water. The maintenance of this dike is therefore seen to have an important bearing upon the prevention of both the shoaling of a portion of the channel in San Pablo Bay, and the shoaling of practically the entire area of Mare Island Strait. The failure of the dike would certainly necessitate dredging costing many thousands of dollars, and viewed from the standpoint of resulting damage only, the board considers an appropriation that will enable this dike to be maintained to be of prime importance.

7. Steps have already been taken by the yard on a small scale to riprap the outer side of the dike, using material excavated from the hill forming the south end of Mare Island. The suitability of this material is in question. It is probably the best available in the vicinity, and at least can be used to advantage for the lower portion

the riprap mound. An appropriation of a considerable sum will be necessary to complete the riprapping with suitable material.

1) *All other dikes.*—These dikes were finished about 15 years ago, at an average of about \$30 per linear foot. They include the two dikes at the entrance to Mare Island Strait, Nos. 9 and 14; various other spur dikes below the navy yard, Nos. 1, 2, 5, 6, 7, 8, 10, and the longitudinal dike. The failure of the longitudinal dike on the Vallejo side, that parallels the channel for a length of about 2,500 feet opposite the navy yard, would be accompanied by results similar in character to, though in importance than, the failure of Dike No. 12, noted above. The failure of the various spur dikes, while of considerably less individual importance, would be accompanied by gradual deterioration of the channel in Mare Island Strait, which would necessitate expensive dredging. The board understands that the present average depth of channel in Mare Island Strait below the navy yard is about 26 feet at low water. The maintenance of all the existing dikes is necessary to insure the maintenance of a channel of this depth, which is the minimum to be contemplated. It is, of course, well known that a channel of greater depth would be desirable. The maintenance, therefore, of all of these dikes is absolutely necessary, no matter what may be the future of Mare Island as regards its further development as a navy yard for building and repair.

The board favors, as the quickest and most easily applied remedy, with the great advantage of permanence, the riprapping of all of these dikes, including Dike No. 12, with the cheapest suitable material, the riprap to be carried to such a height as considered necessary by the local authorities. This method would retain, so far as possible, the existing dikes. It might be found necessary and cheaper for a portion of the work to use creosoted sheet piling and creosoted standard piles.

1) *Quay walls, wharves, and waterfront constructions* that have been provided for berthing purposes and similar operations connected with the use of the waterfront: Mare Island Navy Yard has always been short of berthing space, and now, within the last two and one-half years, practically all of its waterfront improvements, as mentioned above, have been damaged to such a degree that portions have already failed, and most of the remainder are in imminent danger of failure. This condition is a serious menace to both life and property, and is a great handicap to the navy yard as regards ship repairs and other operations. Repairs to the quay wall are under way to the limit of available funds, which are very meagre indeed. To date about linear feet of quay wall out of the 3,600 feet affected have been repaired, and an additional section of 200 feet is at present under repair. Repairs have also been made to the outboard foundation of the cantilever crane serving the building ways, to the apron, and to the timber wharf adjacent to Dry Dock No. 2. Some of the magazine wharves have been repaired, and funds are available for the reconstruction of the circulating loop to the power house. The causeway has been made safe for traffic. A portion of the main quay wall not under repair has already failed. The quay wall on both sides of the entrance to dry dock No. 2 has been condemned and can no longer be used by traveling cranes. Examinations made along the sea wall where settlement of the pavement and tracks has occurred have shown the presence of cavities of different sizes, which render the use of the adjacent ground and railroad tracks unsafe. Recent failures of waterfront structures in different parts of San Pablo Bay have occurred suddenly and without warning. Mare Island structures affected by teredo are liable to fail in the same way. The berthing space at Mare Island, consisting of quay walls, wharves, etc., constitutes an essential and indeed the most important connecting link between vessels of the fleet and the yard facilities for their repair, supply, and maintenance of the fleet, and until the yard can be provided with safe and convenient berthing space, which it now lacks, it will be very seriously handicapped. The appraised value of Mare Island structures is about \$12,000,000, of which amount the waterfront improvements constitute about 10 per cent. Their actual value to the yard as a necessary facility is really several times this figure. Repairs must be of more permanent and expensive construction than that originally adopted. Material exposed to sea water must be of concrete, creosoted timber, or riprap.

Such, briefly described, is the present very critical situation of Mare Island Navy Yard, that can not be relieved or improved without immediate and substantial appropriations from Congress. For unless sufficient funds become available at an early date, that would enable the progressive failure of Mare Island's waterfront structures, including dikes, to be checked, the usefulness and value of the navy yard diminish at an increasingly rapid rate, with the disappearance of the remaining berthing space and the shoaling of Mare Island Strait; and the Government, in any case, will undoubtedly be called upon to make good any damage resulting from the use of the vast quantity of silt through the failure of dike No. 12, which, on account

of causing the shoaling of the dredged channels across San Pablo shoals and in Mare Island Strait, will be detrimental to commercial as well as naval interests, and which will require large Government appropriations for its removal.

11. The board does not understand that any change is contemplated in the policy of the Navy Department to retain the Mare Island Navy Yard as a permanent important shore station, and its views are entirely in accord with the following conclusion and recommendation of the Commission on Navy Yards and Naval Stations, made in 1917, relative to Mare Island Navy Yard:

"Mare Island has many advantages due to defensible location, climate, labor supply, existing dry docks and shops, plant equipment, and various navy-yard accessories of great value and possible service to the fleet; and for these reasons its retention and use for shipbuilding and the repair and maintenance of the fleet, within the limitations imposed by 30-foot channel approaches, is desirable, advisable, and recommended."

This board, moreover, does not consider that the advent of marine borers in San Pablo Bay and Mare Island Strait is a matter that should affect the present policy regarding Mare Island.

12. There is, therefore, in the opinion of this board, only one course open, and that is to repair and replace the damaged structures with construction that will not be affected by marine borers, so as to maintain Mare Island on the same plane of importance and usefulness as before its structures were attacked. No lowering of this plane or lessening of the usefulness or facilities of the yard should be contemplated.

13. The board strongly recommends that this course be approved and followed, and if Congress appropriates at this session sufficient funds to start immediately the work of salvaging and reconstructing those structures whose failure would result in the greatest detriment to the navy yard and the greatest damage to the United States, there is every reason to hope that a considerable portion of the important structures may be saved, thus avoiding further damage, which would entail greater expense at a later date. This course would contemplate the reconditioning or replacing of the damaged structures so as to restore as nearly as may be the conditions existing at the Mare Island Yard as regards channels and as regards berthing space before the marine borers made their appearance. This course may be defined as merely maintaining the status quo of Mare Island Navy Yard, without attempting to put it in a different status than it had before the present crisis arose.

14. Of course there have been various recent propositions for enlarging the scope and the facilities of the Mare Island Navy Yard, as well as for the establishment of a naval base elsewhere in San Francisco Bay. The board does not consider, however, that these questions have any connection with the matter of retaining the status quo of Mare Island, for the work recommended herein will be necessary in any case, and will not interfere with any solution that may ultimately be reached on the separate and distinct problem of increase of naval shore facilities on the waters of San Francisco Bay.

15. The yard's estimates, as submitted to the Bureau of Yards and Docks in the regular manner, are based on merely retaining Mare Island's status quo, and contemplate no important construction other than that required to replace the original structures in a permanent manner. The estimates submitted June 20, 1921, for the fiscal year 1923, are as follows:

Project No. 1, for rebuilding timber wharves and quay walls on account of damage by teredo:

Item 1, repairs to 3,600 feet of quay wall at \$350 per linear foot.....	\$1,260,000
Item 2, repairs to timber wharves, 137,000 linear feet of creosoted piling at \$1.75 per foot in place.....	240,000
Total for project No. 1.....	1,500,000

Project No. 2, repairs to dikes:

Item 3, riprapping Dike No. 12.....	1,100,000
Item 4, riprapping longitudinal dike.....	130,000
Item 5, repairs to other dikes.....	70,000
Total for project No. 2.....	1,300,000

Total for projects No. 1 and No. 2..... 2,800,000

16. In its review of these figures the board has come to the conclusion that this total of \$2,800,000 is a conservative estimate of the sum required for the two projects. Dependent upon the source of supply of the materials, there may possibly be some saving from the item of \$1,100,000 for riprapping Dike No. 12, but the sum of \$70,000

all other dikes, if restored as recommended by this board, would be much too small. Any savings from Dike No. 12 would be required for the other dikes; so that the total of \$2,800,000 will be necessary in any case. The board is of the opinion that the immediate appropriation of this total sum will result in saving a larger percentage of damaged property than would be possible if the amount for present use be limited to a lesser sum. In any event, economy dictates that the total of \$2,800,000 be authorized immediately for the purposes of making continuing contracts, and that \$1,500,000 750,000 on each project—be made immediately available for work to be prosecuted during the fiscal year, to save structures in imminent danger of failure. The foregoing funds are required in addition to an unallotted balance of \$48,500 from an appropriation of July 12, 1921, for the "Maintenance of dikes and dredging."

7. Five items of work appear to be almost equally urgent and should be undertaken simultaneously, viz, (1) reconstruction of quay walls near entrance of Dry Dock No. 2, (2) riprapping Dike No. 12, (3) reconstruction of timber wharves, (4) riprapping longitudinal dike in Mare Island Straits, and (5) riprapping Dikes 9 and 14 at the entrance of Mare Island Straits.

8. The board therefore recommends that every effort be made to secure appropriations as quickly as possible to perform this work in accordance with the navy department's estimates of \$2,800,000.

9. (b) *Water supply for the navy yard, Mare Island, Calif.*—There are no sources of fresh water on Mare Island, and the navy yard, originally depending upon such water as could be collected in cisterns, has obtained its supply from Vallejo for more than 40 years. The quantity available has at times been inadequate, but it has not been deemed necessary or advisable to seek from Congress the appropriation which would be necessary for the installation of an independent water supply, and the yard has continued to place dependence upon the city of Vallejo for many years, which has accordingly implied, if not a direct, responsibility at present for maintaining water supply adequate for all requirements of the navy yard in addition to those of the city of Vallejo. Since May, 1918, the Navy has been obliged to lease wells in Green Valley and pump into the Vallejo mains, in order to obtain a sufficient water supply. The lease expires on June 30, 1922, and it becomes necessary to obtain a new water source, the owners requiring the Green Valley wells for irrigation purposes. These Green Valley wells were required to supplement the Vallejo city supply from the old Horse Valley, which, owing to the scanty rainfall of the past few years, had become practically exhausted.

20. When this board was appointed in January, serious doubt existed as to the navy department's intention to recognize its responsibility in this respect; but correspondence received by the bureau from the navy yard since then, and oral statements made to the board in Washington on January 30 by Dr. James J. Hogan, president of the Chamber of Commerce of Vallejo, indicate that either the city of Vallejo or a group of its citizens will finance and prosecute any necessary increase or modification in the present water supply system, and that therefore no further action by the Navy Department at this time will be necessary. The plan contemplated is to supplement the present supply when the Green Valley wells have to be abandoned within the next few months, by obtaining a supply from the Suscol wells and connecting up the water with the city supply main. If definite assurances, which have been asked of Vallejo by March 1, 1922, are not received relative to increase in the present water supply, it will still be possible, as outlined in inclosure "K" for the Navy Department, to make all necessary arrangements to obtain the Suscol supply for its own use before pumping from the Green Valley wells must stop.

11. This board, therefore, recommends that no action be taken and no decision be made by the Navy Department prior to March 1, 1922, on the water supply matter, and that if by that time Vallejo or Vallejo interests do not offer a satisfactory solution of the water supply question, the Navy Department proceed to obtain a supply for its own use from the Suscol wells, which are understood to be the most convenient and practicable source of supply available at the present time.

H. H. ROUSSEAU,

Rear Admiral (C. E. C.), United States Navy, Senior Member.

F. T. CHAMBERS,

Captain (C. E. C.), United States Navy, Member.

GEO. A. MCKAY,

Commander (C. E. C.), United States Navy, Member.

H. D. ROUZER,

Lieutenant Commander (C. E. C.), United States Naval Reserve Force, Member.

E. C. SHERMAN,

Supervising Engineer, Member and Recorder.

DETAILED COST OF IMPROVEMENTS.

Mr. KELLEY. Have you the details of the \$1,300,000 for the dikes and the \$1,500,000 for repairing the wharves and walls?

Admiral GREGORY. I have not the details of that work.

Mr. KELLEY. Could you put that in the record?

Admiral GREGORY. That detail as worked out originally is on the west coast and I have it not available, but we made a rough checking up in the bureau to secure agreement with that figure and to prove the original detail.

Mr. KELLEY. That is \$417 a foot. That seems quite high. How does it strike you?

Admiral GREGORY. I think that, perhaps, is due to a misunderstanding of the interpretation, that it will apply to only 3,600 lineal feet. While the 3,600 is all that we now know of that needs almost a thorough rebuilding, we are confident from the nature of the walls and wharves that it will necessitate working all the time to protect the balance of that entire structure.

Mr. CURRY. That is the information that I received.

Mr. KELLEY. To the effect that the entire 11,000 feet was in danger?

Mr. CURRY. Yes, sir; not immediate danger.

Mr. KELLEY. Will you put into the record, Admiral, a detail of the cost entering into these estimates, \$1,300,000 for the dikes, giving the per foot cost or the per ton cost or the per cubic foot cost, whichever is proper, and also the \$1,500,000 for the rebuilding of the wharves?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. So that we can advise the House definitely about it.

Maintenance of dikes and dredging.

Riprapping and repairing timber work in order of importance:

Dike No. 12, 8,430 linear feet, at \$80.....	\$674.400
Dike No. 9, 2,100 linear feet, at \$100.....	210.000
Dike No. 14, 1,500 linear feet, at \$100.....	150.000
Longitudinal dike, 2,500 linear feet, at \$60.....	150.000
Dike No. 8, 700 linear feet, at \$35.....	24.500
Dike No. 6, 550 linear feet, at \$35.....	19.250
Dike No. 4, 500 linear feet, at \$35.....	17.500
Dike No. 2, 400 linear feet, at \$35.....	14.000
Dike No. 1, 410 linear feet, at \$35.....	14.350
Dike No. 7, 400 linear feet, at \$35.....	14.000
Dike No. 3, 400 linear feet, at \$30.....	12.000
Total.....	<u>1,300,000</u>

Rebuilding wharves and quay walls:

Repairs to timber wharves, 3,000 linear feet of wharf or pier, average width 40 feet, at \$80 per linear foot, or 120,000 square feet, at \$2 per square foot.....	240.000
Repairs to 3,600 feet of quay wall, at \$350 per linear foot.....	<u>1,260.000</u>
Total.....	<u>1,500.000</u>

NAVY YARD, PUGET SOUND, WASH.

The next item is "Navy yard, Puget Sound, Wash.," roadways and sidewalks, \$25,000?

ROADWAYS AND SIDEWALKS.

Admiral GREGORY. That is for the purpose of building paving and sidewalks on an area which has recently been graded down. That grading has been done under an appropriation for grading and filling in the navy yard and the nature of the material is generally sand and gravel, and it is the desire to have paving put over the newly excavated soil in order that it will facilitate transportation not only on foot, but by vehicle throughout the yard. Quite a big area has been incorporated by the grading operation there, so that we are calling now for this appropriation of \$25,000 to do the most essential portion of one through line from the eastern to the western portion of the yard.

Mr. KELLEY. Just a driveway?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. How long will the driveway be?

Admiral GREGORY. The length now proposed is about 1,600 feet.

Mr. KELLEY. And the ordinary width of driveway, about 20 feet?

Admiral GREGORY. Thirty-two feet.

Mr. KELLEY. That will cost \$25,000?

Admiral GREGORY. \$25,000, with the sidewalk. That includes paving and putting the culverts across the drains so the road will be complete and in proper condition.

CENTRAL POWER PLANT IMPROVEMENTS.

Mr. KELLEY. Central power plant improvements, \$40,000?

Admiral GREGORY. That covers the reconstruction of the steam and hot water mains from the main street of the yard to Pier No. 5 and increases the capacity for relieving the dry dock and Pier No. 5 and the improvement of the electric distribution system around the yard. I have known for some years that the original installation of the distribution mains has been insufficient to carry the current for the large ships that now go to the yard. I was the public works officer there for a number of years. During the period when the fleet was moved up to the west coast we got along very well until that time, but that thrust an additional load on the power plant of the yard, which has been provided for within the last year or so by an appropriation which has permitted the yard to put in larger machinery at the power plant itself, but the distribution lines are still too small. It is like throttling down the output of the large generators. So this sum is asked for to complete the enlargement of the distributing mains.

Mr. KELLEY. Is it made necessary somewhat by the additional shops that we provided, the extension of shops?

Admiral GREGORY. Only partly, but not entirely by any means.

Mr. KELLEY. And somewhat to the reconstruction of the distributing lines?

Admiral GREGORY. The reconstruction of the distributing lines is based on the fact that we have larger ships going out there and they require more current and we have to have larger lines to carry the current.

EXTENSION OF PIER NO. 4.

Mr. KELLEY. "Pier No. 4, extension, \$500,000?"

Admiral GREGORY. Pier No. 4 is a concrete pier that was built in 1914 and 1915. It is only 500 feet long. It is the pier which is relied on almost exclusively at the present time for taking the largest of the ships, because it is the only modern pier they have, but it is too short. The need for lengthening that pier to such an extent that will permit these large ships to lie alongside is an urgent necessity in accordance with the development plans which were worked up a number of years ago and approved by all branches of the Navy Department as being necessary.

Mr. KELLEY. How much berthing space have you there without this pier?

Admiral GREGORY. About 2,500 feet one side of piers.

Mr. KELLEY. Including Pier No. 5 which has been extended?

Admiral GREGORY. Not including Pier No. 5.

Mr. FRENCH. How is the work progressing on Pier No. 5 for which an appropriation was made last year?

Admiral GREGORY. The contract was signed for that about a month ago. I imagine that the work is just fairly beginning by the contractors.

Mr. FRENCH. How long will it take to complete that?

Admiral GREGORY. I think possibly 12 months.

Mr. FRENCH. Does this 2,500 feet of berthing space include that pier or not?

Admiral GREGORY. That is a different pier. That is Pier 5 and this is Pier 4.

Mr. FRENCH. I know, but in the yard you have 2,500 feet of berthing space exclusive of Pier No. 5?

Admiral GREGORY. Yes, sir.

Mr. FRENCH. How much will Pier No. 5 give you?

Admiral GREGORY. Pier No. 5 will give us 2,000 feet.

Mr. FRENCH. That will make a total of 4,500 feet?

Admiral GREGORY. Yes, sir.

Mr. FRENCH. Without Pier No. 4 being extended?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Nearly a mile of berthing space. Will that be sufficient out there?

Admiral GREGORY. It is not so much the length as it is the number of ships you have to take care of, particularly when there are a lot of large ships such as we have to send to that yard. That yard is the only yard where the large battleships in our service can go alongside on the Pacific coast.

Mr. KELLEY. You can use Pier No. 5?

Admiral GREGORY. After we get it completed, but from now on it will be out of commission. After it is rebuilt we can use it.

Mr. KELLEY. Have you not started to build that pier yet?

Admiral GREGORY. They are just about beginning. The contract was let within the last month.

Mr. FRENCH. What berthing space will Pier No. 4 give you?

Admiral GREGORY. Pier No. 4 will give us—

Mr. FRENCH (interposing). I mean the extension.

Admiral GREGORY. The extension will be 1,420 feet. That is 710 feet on each side.

r. KELLEY. Is this 2,500 feet of berthing space on one side or two sides of the pier?

Admiral GREGORY. That is based on one side only.

r. KELLEY. So you would have 5,000 feet on the two sides?

Admiral GREGORY. Yes, sir.

r. KELLEY. Then, when you get 2,000 feet on Pier No. 5, that is side?

Admiral GREGORY. No; two sides.

r. KELLEY. So that would be 2,000 feet more, or you would have 4,000 feet of pier space there?

Admiral GREGORY. Yes, sir.

NUMBER OF VESSELS TO BE BERTHED.

r. KELLEY. How many vessels are you planning on berthing at the yard?

Admiral GREGORY. The record we have shows that at one time we have had as many as 26,000 linear feet of vessels at that yard.

r. KELLEY. What were they—mostly destroyers?

Admiral GREGORY. All kinds, battleships, cruisers, destroyers, fuel ships, and subchasers.

r. KELLEY. You realize that is 5 miles of ships?

Admiral GREGORY. Yes, sir.

r. FRENCH. That does not include those tied up?

Admiral GREGORY. That includes everything laying at the yard.

r. FRENCH. A little over a year ago when I was there, there were a great many ships rather locked together and I supposed just merely crowded with men enough to care for them, tied up in the water.

Admiral GREGORY. They have been moored off the yard, moored out to buoys or with their own anchors.

r. FRENCH. They do not need any berthing space?

Admiral GREGORY. It is desirable that they should have berthing space. Whenever they are lying outside like that they are not getting the attention which they should be given. If they have a crew on board and no work to be done on the vessel, then there is no possibility of having them like that. If they have to have workmen aboard there is a great loss of time in not being able to come back and forth frequently and get materials and tools when required. On the other hand, if the ship is out of commission, it is also desirable to have her along a pier so she can be more accessible to the working parties of the yard rather than entirely separate from the yard supervision.

FOOTAGE OF PIERS.

r. KELLEY. Let us go back to the pier again. You have or will have 6,000 feet when your present improvements are completed, and want to add 1,500 more feet; is that correct?

Admiral GREGORY. Fourteen hundred and some odd feet; yes, sir.

r. KELLEY. Has your contract been let for Pier No. 5?

Admiral GREGORY. It was let about a month ago.

r. KELLEY. And that will be completed within the amount of appropriation?

Admiral GREGORY. Yes, sir; the amount of contract recently awarded was within the appropriation.

Mr. KELLEY. How many battleships will be berthed there?

Admiral GREGORY. That depends entirely upon how many the department assigns to the Pacific and how many they send up there at one time. There have been as many as nine battleships there.

Mr. KELLEY. How many are in the Pacific now?

Colonel ROOSEVELT. That I can not tell at this particular moment.

Mr. KELLEY. Are there nine?

Colonel ROOSEVELT. There were more than 9; I think the number is 10, but I would not swear to that.

BERTHING FACILITIES AT MARE ISLAND.

Mr. KELLEY. You have some at San Francisco?

Admiral GREGORY. The largest ships do not go into the Mare Island yard.

Colonel ROOSEVELT. This is really the yard for the largest ships.

Mr. KELLEY. About the largest ones you have got were built at Mare Island, and if they came out they should be able to go in.

Admiral GREGORY. No, sir; because when they came out they did not have their guns and stores on board, but they came out light.

Mr. KELLEY. They come out on high tide?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. They come out all right?

Admiral GREGORY. Yes, sir; when they are light.

Mr. KELLEY. They could also go in at high tide.

Admiral GREGORY. Yes, sir; at extremely high tide.

Colonel ROOSEVELT. It is too touchy a proposition in the case of a big battleship, Mr. Chairman.

Mr. KELLEY. You will find that they can go in there all right.

Colonel ROOSEVELT. It is the kind of thing you would not want to do if you could help it.

Mr. KELLEY. There has been a good deal of propaganda going on against the Mare Island yard that is not deserved.

Colonel ROOSEVELT. All I can say is that it is not particularly propaganda, but it has been investigation after investigation.

BERTHING FACILITIES OF PUGET SOUND YARD.

Admiral GREGORY. We feel that the pier outfit at the Puget Sound yard, which, until you recently authorized the reconstruction of Pier No. 5, was entirely out of date, is inadequate. The piers were short and not suited to the needs of the yard. We have been trying to modernize that yard in all ways, since it was the policy of the department to have the large ships on the Pacific coast. That has altered the complexion of the entire situation.

Mr. KELLEY. You are speaking of Puget Sound?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. There is no doubt about this being a fine place out there, because the water is deep.

Admiral GREGORY. There is none whatsoever. The natural conditions of the yard are considerably superior to those of any other yard we have.

Mr. KELLEY. But the geographical location of it will always mean a less use of that yard than would be the case in the neighborhood of

in Francisco. Whatever development is made there, it will be the chief place on the Pacific.

Admiral GREGORY. That does not necessarily follow. It depends entirely upon how much you find may be necessary for the development of Alaska, and upon the question of whether maneuvers will be held in the North Pacific at some future time.

Mr. KELLEY. Is there much fog up there?

Admiral GREGORY. They have fogs up there, but I do not know what it is any worse than at any other place. I have seen as much at New York or at San Francisco.

Mr. FRENCH. Is it more so at San Francisco?

Admiral GREGORY. There is not a great deal of difference with regard to fog conditions between Puget Sound, San Francisco, and New York City.

Mr. KELLEY. If you do not get Pier No. 4, you do not want the dredging?

Admiral GREGORY. The two do not go together.

Mr. KELLEY. The dredging is up against the sea wall, is it not?

Admiral GREGORY. No, sir; that dredging is in two places—one place next to Pier No. 4, and in another area between Piers 7 and 8. Those are two areas which have not been heretofore dredged, and they are original bottoms.

COST OF DREDGING AREA BETWEEN PIERS 7 AND 8.

Mr. KELLEY. How much will it cost to dredge the area between piers 7 and 8?

Admiral GREGORY. That would probably take three-fourths of it.

Mr. KELLEY. \$35,000, or some such matter?

Admiral GREGORY. I think our estimate was arbitrarily reduced, because prices were dropping.

Mr. KELLEY. Is it about \$35,000 for the two?

Admiral GREGORY. In the event we dredge the area between piers 7 and 8, it would probably cost about \$40,000, and the area next to Pier No. 4 would take the remaining \$10,000. However, the two would really have to go together in order to get the benefit of that unit price.

Mr. KELLEY. My recollection is that you built a sea wall down here to hold the earth that you had scraped down when you leveled the hill there into the sea. You then built a sea wall, and the piers come up next to the sea wall.

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And it will take some dredging at that point if you build additional piers?

Admiral GREGORY. No, sir; that is not the same pier. This dredging is to be next to Pier No. 4, and it is not on account of that new sea wall.

Mr. KELLEY. I thought the sea there was very deep.

Admiral GREGORY. This new fill that you speak of would be about down here [indicating]. This [indicating] is Pier No. 4, which has a number approach, with concrete from that angle [indicating] out. We now propose to extend it out 710 feet more. This area is right at the entrance to the dry dock as well as at the approach to Pier No.

It is desired to have this area dredged out in order to entirely

remove any obstruction to the entrance to the dock as well as pier.

Mr. KELLEY. This earth should be removed from the approach to the present pier.

Admiral GREGORY. Yes, sir; from the dock entrance.

Mr. KELLEY. That part, you say, will cost \$10,000, provided be done in connection with the other job?

Admiral GREGORY. Yes, sir; the relative proportions are \$1 as against \$49,000, making a total of \$60,000, but we have arbitrarily reduced that to \$50,000, or one-sixth, provided the two go together.

RIFLE RANGE, INCLUDING PURCHASE OF LAND.

Mr. KELLEY. Now, as to the rifle range, including the purchase of land. Is that adjacent to this yard?

Admiral GREGORY. That is not adjacent to the yard, but it is 10 or 11 miles north of the yard. This is a proposition which has been discussed for a good many years, and during my period of duty at that station I had to make a great many searches in different portions of the country to find a site which would be suitable for a rifle range. It was felt to be a crying necessity for the enlisted force to get proper training in the handling of small arms in all ways possible, and it was important to find a suitable place. The Government does not own a rifle range, so called, directly south of the navy yard, on the Orchard side of the bay. That range is a stretch of land with no backstop, however, except a few small trees. Much of the station timber is on private property north of the station, and we have been threatened with damage suits very strenuously by the owners because bullets come into their timber and they have lost a large amount of timber by getting some filled with the bullets. The principal objection to that range, however, is the fact that during a large portion of the year the site is practically cut off by reason of the impassable roads, and it has been found that the Government simply could not make use of it. Now, we have made investigations there that have been extended over a great many years. I have personally traversed over a great many square miles of that territory with a view to finding a suitable place, and other officers also have been making searches. After searching for approximately seven or eight years we finally found this particular area, and have not succeeded in finding anything better since then. It is within a mile and a half of the water front at the torpedo station.

DISTANCE OF PROPOSED RANGE FROM NAVY YARD.

Mr. KELLEY. How far is it from the yard?

Admiral GREGORY. It is 11 miles north of the yard.

Mr. KELLEY. How much land do you want to buy?

Admiral GREGORY. The area is 320 acres. It is one mile north and south and half a mile east and west.

Mr. KELLEY. It is 11 miles from the yard?

Admiral GREGORY. It is 11 miles from the yard by way of the Keyport Pier. This rifle range is about a mile and a half south by way of Keyport Pier.

Mr. KELLEY. It would be about twelve and a half miles from the yard?

Admiral GREGORY. Yes, sir, of which 11 miles would be by way of the Keyport Pier and one and a half miles by land, but coming back towards the yard.

COST OF RANGE AND RANGE SITE.

Mr. KELLEY. How much would it cost to put the range in use?

Admiral GREGORY. The appropriation now being requested will provide for the purchase of the land, together with the most urgent butts that will be required. It would probably be a good many years before we would expand enough to use all of it as a range, so as to require any further appropriation. Furthermore, it is likely that whatever else had to be done would be done by the enlisted force on detail there using the range.

Mr. KELLEY. What amount is estimated for the land?

Admiral GREGORY. We had to guess at the amount for the land, but we have a close figure. In fact, we had refusals from property owners, and every year we postpone the purchase we find that it goes up.

Mr. KELLEY. What is the assessed valuation?

Admiral GREGORY. The total value on which assessment is made runs only to \$3,685, but I know that is only a very small proportion of the land we would have to buy.

Mr. DAVIS. Are there any improvements on the land?

Admiral GREGORY. It is about half and half. Some of it is improved.

Mr. DAVIS. What do you mean by improvements in that connection? Is it farming land?

Admiral GREGORY. It is grazing land. About one-half of the entire area is wooded with scrub timber, and of the remaining half probably two-thirds is grazing land and the other one-third is farming land.

Mr. DAVIS. \$3,500 would be a good price for it.

Admiral GREGORY. The average price during the periods we have had the project under consideration, covering this entire area, has been about \$22,000, but we have been holding these people off so long that I do not believe that we could get them to renew those options at that figure, and I dare say we would have to pay almost double that at the present time.

Mr. KELLEY. Have you used this land?

RENTAL OF SITE AND COST OF ITS PURCHASE.

Admiral GREGORY. We have actually used it for firing for years, and it has been very satisfactory.

Mr. KELLEY. You are using it now?

Admiral GREGORY. We are using it now on a rental basis, getting it from time to time.

Mr. KELLEY. How much are you paying a year for it?

Admiral GREGORY. At first they did not ask anything for the rental. They wanted us to try it and see if it were suited to our purpose, and for the first year, as I recall, it cost us nothing. Since then the land has been used on a rental basis through the Marine Corps, and I have no record of what they pay. As I recall it, however, the rental is about \$100 a year. The portion that has been in use is the good land. They have not been using the rough land.

Mr. KELLEY. Is there any particular urgency about buying it?

Admiral GREGORY. While there may not be any great urgency, it is a thing that is decidedly missed out there when the fleet is at

Bremerton, because they have no way in which to train the men in the handling of small arms.

Mr. KELLEY. You would need to make some improvements on the land?

Admiral GREGORY. Yes, sir; we would have to build targets and firing butts.

Mr. FRENCH. I would like to go into the cost of this land a little bit more. You say that the assessed valuation is \$3,900.

Admiral GREGORY. \$3,685 is what we have got from the tax books.

Mr. FRENCH. I am somewhat familiar with the ratio of assessed values to real values, and I would say that the price that they are asking for it on the basis of even \$22,000 is simply outrageous. I think you will find that they are asking that price because we are talking about acquiring it. If we had the same law that they have in Australia, under which the State could buy the land at the assessed valuation, or else that the owner be compelled to pay taxes on the higher basis, you would not have any such fictitious valuation placed on that land as \$22,000. I think the way to acquire that land is to abandon all interest in it until they have dropped down to the proper value.

Admiral GREGORY. I do not think that would have any effect. I am decidedly in agreement with you in regard to the question of the assessed valuation, but I am also aware of the fact, having been in touch with a great many land purchases in and around Puget Sound, that there is no relation whatever between the assessed value and the actual sale value.

Mr. BYRNES. As a matter of fact, that is true in many cases.

Admiral GREGORY. It would be so in that location.

Mr. FRENCH. I suppose values have changed pretty rapidly over there, because the country is growing; but, at the same time, it seems to me that there should be a closer relationship between the assessed value of the land for taxing purposes and the price at which they offer to sell it.

Admiral GREGORY. Yes, sir; but that is something over which I have no control.

Colonel ROOSEVELT. As I understand it, this is a hand-to-mouth proposition. We can not get a long lease from them out there, and we can not rent it for a long period of time. The probabilities are that at any time we may be turned right off, and from the general trend of the situation out there and from the way that coast is developing, it is probable that the longer we wait the more we will have to pay.

Mr. FRENCH. Is not this a question that you would have to take up with the other committee?

Mr. KELLEY. I thought that we had as well get the facts about it now.

Colonel ROOSEVELT. That is about the general situation there, is it not, Admiral?

Admiral GREGORY. Yes, sir; that is perfectly correct.

ADAPTABILITY OF SITE FOR TARGET PRACTICE.

Mr. KELLEY. If this place was being improved for other purposes, they would not want to sell this tract for a rifle range. The fact that they are willing to sell it for a rifle range indicates that the whole region is not to be used for anything else.

Admiral GREGORY. It happens that at the north end of this property there is a high hill bordering it, 400 feet above the plain to the South, and we have selected this land because it is in such a place that the shooting will be into this high hill.

This hill has such a steep slope and is, furthermore, so densely wooded that it is not likely that that particular land or the surrounding land would be developed. The small plain that we are now using for rifle-range purposes is farming land. When we first went in there they were farming a certain percentage of it, but since then additional land has been put under cultivation. That has been done because the population of the district has been increasing. Consequently, we felt like this, that the longer we put it off the more price will be asked, for the reason that more and more of the land will be under cultivation. Now, the rough land, or what is called pasture land, or land that is covered by scrub brush, poplar, etc., not of very great value, but the part that is under cultivation has value and it is increasing in value all the time.

STATEMENT OF PROGRESS OF WORK ON PATTERN-SHOP EXTENSION, DRY DOCK, ETC.

Mr. FRENCH. Probably we should have a statement covering the progress of the work there on the pattern-shop extension, the dry dock, and the additional storage facilities.

Mr. KELLEY. Suppose you put in the record a statement of the progress you have made on the work in connection with each one of the improvements appropriated for last year.

Admiral GREGORY. I will do so.

Grading, filling, and sea-wall construction, \$250,000. This appropriation is completely obligated under contract recently awarded for quay wall.

Steel blocks for Dry Dock No. 2, \$6,500. These blocks are being delivered, and being installed by yard forces.

Extension to building No. 178, \$13,500. This building is being erected by yard forces under allotment of funds. Work just begun.

Roadways and walks, \$25,000. Work completed by yard forces.

Pier 5, \$715,000. Contract awarded latter part of February, 1922. Work has started.

Telephone improvements, \$10,000. Requisition for all equipment forwarded to Bureau of Supplies and Accounts, via Secretary, March 17, 1922.

Pattern-shop extension, \$90,000. Work under way by yard labor.

Fifty-ton dry-dock crane, \$200,000. Materials for this crane are all assembled at point of fabrication. Fabrication is 25 per cent complete, and shipping orders have been forwarded to the contractor.

Additional storage facilities, \$95,000. Plans and specifications for this development complete, and the project is now under advertisement.

BATTLESHIPS ON PACIFIC COAST.

Colonel ROOSEVELT. Before we go on I should like to say that my statement as to the number of battleships in the Pacific was correct. There are 10 there now, but 11 will be there in the near future. The Maryland is undergoing some minor repairs before going there, so there will be 11 in all. In that connection I would just simply like to point out that the number of lineal feet does not necessarily mean the number of feet that can be used for berthing battleships, because—stand ready to be corrected by these gentlemen at any time—you can very often have lineal feet which would be simply useful for berthing smaller vessels, but are not of such an extent that they could be useful for berthing battleships. That is correct?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Where you have a long pier, 500 feet or 700 feet, length of the pier determines the number of battleships?

Colonel ROOSEVELT. Yes, sir. You can not put two and a half one and a half ships—that is what I meant.

Mr. KELLEY. With this yard at Mare Island put into the ship we are now planning, it probably would be much more likely to be used extensively than the northern yard, do you not think so?

Admiral GREGORY. By the larger ships which do not go up there as they do to Bremerton.

Mr. KELLEY. There are much better shops at Mare Island than at Bremerton?

Admiral GREGORY. Somewhat, but both yards are fairly well equipped with shop space at the present time.

Mr. KELLEY. My understanding was that Mare Island was exceptionally well equipped—they built the *California* just recently there.

Admiral GREGORY. Yes, sir. Battleship machinery can not be built completely at Bremerton.

Mr. KELLEY. If the channel difficulty is taken care of, the yard at once becomes a great asset?

Colonel ROOSEVELT. That is why I reserved until to-morrow my statement on the matter.

NAVAL STATION, PEARL ISLAND, HAWAII.

ADDITION TO MACHINE SHOP.

Mr. KELLEY. At Pearl Harbor you are asking for an addition to the machine shop, \$200,000. What about that, Admiral? Is it provided for an addition there last year, \$200,000; has that been completed?

Admiral GREGORY. Under the appropriation acts of June 4, 1920, and July 12, 1921, the appropriations aggregate \$300,000 for this project.

Material for a modern steel building, 523 by 180, with cranes was secured from the War Department without transfer of funds and was shipped to Pearl Harbor. Foundations for this building are being installed by station labor, and it is expected that contracts for the erection of the building proper will be awarded in the near future. A contract for erection of the steel has been awarded and work is under way. An additional appropriation will be required for the final completion of the building and for machinery foundations, floor, distributing systems, roadways, and sidewalks, and the various auxiliary features necessary to put the shop in operation.

Mr. KELLEY. There was an appropriation for this last year as well as this year. You have not started the work or let the contractor have you?

Admiral GREGORY. That building was transferred from the Army. We have got it there ready to put it up, but we can not do it until the foundation is made ready for the erection of the building.

Mr. KELLEY. This is an addition to the machine shop?

Admiral GREGORY. It is an addition to the machine shop.

Mr. KELLEY. You will have to get the machine shop up before you build this addition?

Admiral GREGORY. The original machine shop is there, and this an additional building for which \$200,000 was given last year.

Mr. KELLEY. Has that been expended?

Mr. SMITH. \$45,000 of it has been allotted, but not expended. One hundred and fifty-five dollars of it has not yet been allotted, but is about to be allotted toward the completion of the building.

Mr. KELLEY. \$45,000 of it has been allotted, but it has not been expended?

Mr. SMITH. No, sir; it has not been actually paid out.

Mr. KELLEY. We can let that go until next year all right, can we not?

Colonel ROOSEVELT. I am not prepared to say as to that, and I want to put in a caveat. That is very important out there now.

Mr. KELLEY. If these officers do not know enough about it to say that it is urgent, I think it could be very well postponed. It appears that they have allotted \$45,000, which they have not expended, and that they have not allotted the rest of it. They have not expended any of it.

Colonel ROOSEVELT. Therefore, I am not prepared to say now. I want to go into it.

NOTE.—Investigation discloses the fact that machine tools sufficient to equip this entire building are now available on the ground, having been transferred from War Department surplus stock. To secure the benefits of the whole installation, it is only necessary that building operations be carried through to completion.

A further argument for continued prosecution of the work is afforded by the present status of the project. The foundations are progressing toward completion and the steel framing is straightened, painted, and ready to be erected under a contract already let. Bids for the completion of the superstructure will be received in the immediate future. The department is strongly desirous of obtaining the benefits which would accrue from the use of this shop, the necessity for which is in nowise diminished at this time. Construction is definitely under way, and steady prosecution to completion as planned is unhesitatingly recommended.

ITEMIZED STATEMENT OF PROPOSED EXPENDITURE FOR ADDITION.

Admiral GREGORY. I can give you the information as to how the appropriation of \$200,000 is to be spent.

The item of \$200,000 included in the Budget under the heading "Addition to machine shop" will be required to cover the various items necessary to complete the building for operation. A list of these items with approximate estimates of cost is given below:

Floor (wood block on concrete base).....	\$70,000
Machine tool foundations.....	30,000
Distributing system (air, water (including fire protection), electric (including inside power wiring and substation equipment), telephone).....	70,000
Installation of cranes.....	9,000
Racks.....	8,000
Roads and walks.....	10,000
Total.....	197,000

With the possible exception of a small margin for contingent fund, the \$300,000 appropriated in the naval appropriation acts of June 4, 1920, and July 12, 1921, will have been expended in the preparation of the materials for reerection, foundations for building, the erection of steelwork, and the completion of the building proper. This \$200,000 is not a new item, having been anticipated since the project of moving and reerecting this building was undertaken. When estimates were submitted for the fiscal year 1922, the bureau's estimate

for the completion of the building was \$400,000; \$200,000 of it was included in the appropriation act passed July 12, 1921, and the remaining \$200,000 is included in the Budget for the fiscal year 1923.

TRANSFER OF SURPLUS BUILDING FROM NICETOWN, PA., TO PEARL HARBOR.

By arranging for the transfer of the suitable War Department surplus building from Nicetown, Pa., to Pearl Harbor, instead of constructing a new building, it is estimated that approximately \$250,000 will have been saved in the cost of the project.

Mr. KELLEY. They asked \$400,000 for that work two or three years ago, and it goes without saying that you do not need \$400,000 now, because building materials and labor have declined enormously since then.

Admiral GREGORY. I understand that that has been taken into account by reason of the fact that the building was taken from Nicetown, Pa.

Mr. KELLEY. It is quite apparent that this estimate has not been revised in the light of the new conditions.

Admiral GREGORY. We find, in connection with work done at Pearl Harbor, that you do not get the benefit of any great proportion of the fluctuations in costs that you get when you are nearer the market. The cost of work out there has not changed greatly.

Mr. KELLEY. Is there not some way by which machinery could be transferred from some place on the Atlantic seaboard, where it is not to be used, and installed for use out there, without buying new machinery?

TOOLS AND EQUIPMENT FOR BUILDING ADDITION.

Admiral GREGORY. This does not include equipment or new machinery.

Mr. KELLEY. It amounts to the same thing, because you are not going to build a shop like that without providing tools and machinery. For instance, you might be able to move some machinery and tools that are not needed at the Philadelphia yard, where, during the war we constructed great buildings and filled them with tools of the most expensive kind. I suppose we spent \$35,000,000 or \$40,000,000 there for that purpose during the war.

Admiral GREGORY. I think that is what the department does.

Mr. KELLEY. Then, suppose we let this go, and let you hunt around and get tools and machinery from some of those places?

Admiral GREGORY. But this is not for tools.

Mr. KELLEY. You provide for machinery and some other tools, and it is all one thing.

Admiral GREGORY. We could not devote this money to the purchase of tools.

Mr. KELLEY. Could you not transfer machinery and tools from the Philadelphia Navy Yard to Pearl Harbor?

Admiral GREGORY. But that does not provide the building.

Mr. KELLEY. You will have the building.

Admiral GREGORY. This is for the completion of the building that we are asking.

Mr. KELLEY. You referred to a lot of tools in there. Suppose you read that again.

Admiral GREGORY. It refers to foundations for tools.

Mr. KELLEY. What else have you in there?

Admiral GREGORY. That is all there is in reference to tools.

Mr. KELLEY. Where will you get the machinery and tools for this shop?

Admiral GREGORY. That does not come out of this appropriation. The Bureau of Engineering or the Bureau of Construction and Repair, occupying that shop, would undoubtedly have to get tools either from their special appropriations or by a transfer of tools and machinery from some other stations where they were not required.

NOTE.—All tools for equipping the machine shop are now at the station awaiting allocation.

Mr. BYRNES. As I understand it, you had an appropriation of \$20,000 in 1920 for this purpose?

Admiral GREGORY. Yes, sir; an appropriation for 1920.

Mr. BYRNES. And in 1921 you had an appropriation of \$200,000, which, added to the appropriation of \$100,000 for 1920, made \$300,000.

Admiral GREGORY. Yes, sir.

ESTIMATED TOTAL COST OF ADDITION.

Mr. BYRNES. What was the estimate of the total cost of this addition to the machine shop?

Admiral GREGORY. It was estimated to cost \$500,000.

Mr. BYRNES. There was an original estimate made on the addition to the machine shop. You must have made some estimate in 1920.

Admiral GREGORY. It was \$400,000 to complete.

AMOUNT APPROPRIATED TO DATE.

Mr. BYRNES. How much of that total cost of \$400,000 has been appropriated?

Admiral GREGORY. \$200,000.

Mr. BYRNES. Then, that \$200,000 you refer to is to be applied to this addition?

Admiral GREGORY. Apparently this addition is an extension which was not contemplated at the time the original estimate was made.

Mr. BYRNES. Then I do not understand it. There was an appropriation in 1920 for a machine shop or for an addition to a machine shop.

Admiral GREGORY. I will have to refer to the bill. You were asking what was appropriated in 1920, and it was \$100,000.

Mr. BYRNES. For what purpose? I want the separate appropriations for the original machine shop and the addition to the machine shop.

Mr. KELLEY. There was an item of \$100,000 in the appropriation bill for the fiscal year 1921 to continue the machine shop, so they must have had something before that.

Mr. BYRNES. Is that when you began to get appropriations for the addition to the machine shop; that is, when you got \$100,000 in 1920?

Commander ROUZER. Yes, sir.

Mr. BYRNES. Then you got an appropriation of \$200,000 in the bill of July 12, 1921?

Commander ROUZER. Yes, sir.

Mr. BYRNES. You are asking \$200,000 additional?

Commander ROUZER. Yes, sir.

Mr. BYRNES. Making \$500,000 you are asking for the addition to the machine shop?

Commander ROUZER. Yes, sir.

Mr. BYRNES. What is your estimate of the total cost of this addition to the machine shop?

Commander ROUZER. \$500,000.

Mr. BYRNES. This is to complete that addition?

Commander ROUZER. I think there is a misunderstanding about the addition. It might be called an additional machine shop. It is a building secured from the Army up near Philadelphia.

Mr. KELLEY. When was it moved?

Commander ROUZER. The transfer was made without any cost to the Navy.

Mr. KELLEY. When was it made?

Commander ROUZER. Just before the armistice.

Mr. KELLEY. In 1918?

Commander ROUZER. Yes, sir.

NOTE.—Records show that this building was shipped to Pearl Harbor in 1920.

Mr. BYRNES. That is what you call an addition to the machine shop?

Commander ROUZER. Yes, sir.

Mr. BYRNES. The \$100,000 was the first money applied to the work?

Commander ROUZER. Yes, sir. This is a steel building 523 feet long and 180 feet wide.

Mr. BYRNES. Did you estimate in 1920 that, having moved the building out there, it would cost \$500,000 to complete it?

Commander ROUZER. Yes, sir; a foundation had to be provided for the steel structure.

STATEMENT OF APPROPRIATIONS, COSTS, AND EXPENDITURES FOR ADDITION TO MACHINE SHOP.

Mr. BYRNES. Of this \$300,000 you have already received, how much have you actually spent?

Colonel ROOSEVELT. Suppose we let the matter stand this until to-morrow. By to-morrow I will have it checked up to determine, (a) whether the estimate can be revised, in view of present conditions, cheaper costs, etc., and a cut made in any way, and (b) whether the situation is urgent and why, or whether it should all be expended in this year or whether properly a certain proportion of it could be taken care of out of next year's appropriation.

Mr. KELLEY. We will be glad to have you do that.

NOTE.—As stated heretofore, the machine-shop building was secured from the Army in 1920 without cost to the Navy other than transportation charges from the States to Pearl Harbor.

The estimate of \$500,000 to complete the additional machine shop has been changed, and it is found that certain additional expense has been necessitated which was not contemplated at the time original estimate was made. The expense of straightening structural steel is greater than originally estimated, due to the fact that this steel has been rehandled so many times that the cost of straightening it at Pearl Harbor is

0,000 more than was originally anticipated. It is also developed that much of the material which it was thought could be moved and reused was unfit for use. None of the gypsum roofing material can be used. A further expense has been encountered in furnishing missing parts of the building. An additional expense arose from the necessity of cutting and splicing some of the heavy members to permit of their being carried in the ship assigned for this purpose. These items of extra expense offset the saving which might be anticipated as the result of increased efficiency of labor. As of date, bids received from Hawaii do not show the same decrease in cost which has occurred on construction work here in the States.

The condition of the building at the present time is, the foundations are well under way and the steel has been straightened and the contractor for the steel erection is starting this work. Bids will be taken as quickly as they can be secured on the roofing and siding, and following this, if the building is to be made available, there will immediately be required money for the floors for the crane erection, machine tool foundations, distributing system, tracks, roads, and walks, which items are contemplated under the \$200,000, requested in the pending naval bill. All of this work is to be completed during 1923, and unless money is made available for these items the station will be unable to use the building.

There is given below a detailed statement of appropriations already made and devoted, together with estimates of cost of work under way and necessary to complete the project:

Appropriations:

No. 232, subhead 76, act of June 4, 1920.....	\$100,000.00
No. 232, subhead 80, act of July 12, 1921.....	200,000.00
Proposed appropriation, fiscal year 1923.....	200,000.00
Total.....	500,000.00

ITEMS OF WORK.

Completed: Furnishing missing parts of building..... \$5,284.76

Under way:

Straightening and painting structural steel of building (station labor).....	\$29,500.00
Foundations of building (station labor).....	50,000.00
Erection of steel work (contract 4464).....	45,825.00
	<u>125,325.00</u>

Ready for bids: Completion of superstructure of building.. 165,000.00

Total..... 295,609.76

Items necessary to complete project:

Floor (wood block on concrete base).....	70,000.00
Machine tool foundations.....	30,000.00
Distributing system (air; water, including fire protection; electric, including inside power wiring and sub-station equipment; telephone.....	70,000.00
Installation of cranes.....	9,000.00
Tracks.....	8,000.00
Roads and walks.....	10,000.00
	<u>197,000.00</u>

Total..... 197,000.00
Contingent..... 7,390.24

Total estimated cost of project..... 500,000.00

ADDITIONAL STORAGE FACILITIES.

Mr. KELLEY. For additional storage facilities you estimate \$65,000. You had \$200,000 for storage facilities last year. Have you spent that?

Admiral GREGORY. That is all obligated except about \$3,000.

Mr. KELLEY. Have you spent it?

Admiral GREGORY. It will all be expended this year.

Mr. KELLEY. How much have you spent?

Admiral GREGORY. All of it has been expended except \$3,000.

Mr. KELLEY. The buildings are up?

Admiral GREGORY. It is under contract.

Mr. KELLEY. You want to put up an addition with this \$265,000.

Admiral GREGORY. They now need an additional storehouse, which is the one covered by this estimate.

Mr. KELLEY. Tell us about that.

Admiral GREGORY. There is at present but one general storehouse, containing about 80,000 square feet of floor space, and the present lack of storage space is one of the greatest weaknesses of the yard.

Mr. KELLEY. This is a new building?

Admiral GREGORY. Yes, sir; a new building.

Mr. KELLEY. We had as well stop right there, then.

Admiral GREGORY. It is for the storage of things now largely kept in the open.

Mr. KELLEY. We do not have authority to build new buildings.

Mr. OLIVER. Where are the things you now speak of that need storage space?

Admiral GREGORY. They are right at the station. I do not know just what quantity, because I have not seen it, but it is reported to me that they have a large amount of stuff stored in the open.

Mr. KELLEY. You might tell us why this is necessary.

Admiral GREGORY. There is included a one-story storehouse building, which is a separate building, costing \$200,000, and in addition to the paint and oil storehouse costing \$65,000. There are two items included. This addition to the oil and paint storehouse is estimated to cost \$65,000.

Mr. KELLEY. Why do you need that addition?

Admiral GREGORY. That is material which I understand is in the open now. The paint is in cans, and there are other materials of that kind.

Mr. KELLEY. How much addition will you build?

Admiral GREGORY. We have the plans of that, but I can not put my hands on them.

Mr. KELLEY. I suppose it is to be constructed of cement and steel?

Admiral GREGORY. It is to be a fireproof building.

Mr. KELLEY. A one-story building?

Admiral GREGORY. I think it is a one-story building. I can give you the details of that.

Mr. KELLEY. The material to be stored is now in open storage?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. What do you need the \$200,000 for?

STORAGE SITUATION OF PEARL HARBOR.

Admiral GREGORY. That is a separate building. I have been trying to find out the nature of the stores they have had in there, but I did not find out. I will have to give you that information in the morning.

Mr. KELLEY. You may put in the record at this point a complete statement showing the character of the building you intend to build, if this money is provided, and the necessity for the additional storage, and you may also state how you are handling that storage now.

Admiral GREGORY. I will do so.

NOTE.—The storage situation at the naval station, Pearl Harbor, is very acute; available storehouses are congested and a considerable amount of material is stored in the open. On the basis of studies made in the past two years, the station and the Bureau of Supplies and Accounts have urgently recommended extension to all of

storage facilities, including those for general stores, metals, lumber, boats, comestibles, provisions, and clothing, at an estimated cost of over \$2,000,000. It is considered that the most urgent of these needs are for a one-story building, with crane space similar to that now being constructed under the \$200,000 provided in last year's act, which will provide for the storage of heavy industrial material, spare parts, machinery, stores turned in or assembled for vessels, surveyed material, etc., and an addition to the paint and oil storehouse. The one-story storehouse contemplated will be 120 by 500 feet and will be provided with a 10-ton crane to handle the heavy material. The addition to the paint and oil storehouse contemplated is a one-story building of fireproof construction, 43 by 243 feet. The estimated cost of the one-story general storehouse is \$200,000, and of the additional paint and oil storehouse, \$50,000.

WATER SUPPLY EXTENSION.

Mr. KELLEY. You have an estimate of \$153,000 for water supply extension. What about that?

Admiral GREGORY. That is a very important proposition for the Naval Harbor station. The present Army water supply is from a well

Fort Shafter, and the Navy has been utilizing a water system in which the water is brought from wells several miles away from the Navy yard, and, with the growth of the naval station and the growth of the Army post, it is found that at the present time the water supply is not sufficient for the station's needs. They have had a joint board of officers on the station, including both Army and Navy officers, and they have decided upon a plan of development. They have decided that the part of the estimated cost for which the Navy should pay is \$153,000. The War Department is also carrying a part of the cost under its estimates, which will be submitted by them in due course of time, probably during the spring. We are therefore asking for the part which falls upon the Navy, or \$153,000, and this work cannot be prosecuted without regard to work to be done by the Army, which work is contemplated to be done later.

PRESENT WATER SUPPLY SYSTEM.

Mr. KELLEY. I think I have heard some reference to this project before. Is the water brought from some considerable distance?

Admiral GREGORY. Yes, sir; it is brought from wells at Moanalua, considerable distance away, 4 miles, approximately.

Mr. KELLEY. The pipes are in, are they not?

Admiral GREGORY. No, sir; they are in a part of the way, but we are not getting water at the present time from the source to which they expect to extend the mains. This is to be a new series of wells at which they will put the pipes into.

Mr. KELLEY. This simply involves taking up the old piping and locating it?

Admiral GREGORY. No, sir; I understand that the old pipe will remain where it is. This will be an additional system, or a system supplementary to the old system. In fact, we could not take up the old pipe until the new was installed, in any event.

Mr. KELLEY. Is there any real shortage of water?

Admiral GREGORY. Since we have had the increased number of ships out there the demand has been so heavy that they have had to economize in order to conserve their water supply, and they do not have water enough.

Mr. KELLEY. Commander Rouzer, have you any special recollection about this?

Commander ROUZER. Yes, sir; this item was put in last year, and I remember that it was discussed. We asked, I think, for \$165,000, and the Army was to insert a similar amount in their bill, but, as I recall it, that was not done by the Army.

Mr. KELLEY. Have they done it this year?

Commander ROUZER. My understanding is that the Army estimate has been submitted.

Mr. KELLEY. Is any provision made for this in the Army bill, Mr. Byrnes?

Mr. BYRNES. You cannot tell about that. There was an estimate of \$42,000,000 in lump sum, and that estimate was cut to \$27,000,000 by the committee. Therefore, \$15,000,000 will have to be taken away from some items. It will depend upon their allotment of the \$27,000,000, I presume.

Mr. KELLEY. This proposition is for bringing water from some springs, and it is not any harbor proposition at all. It is for bringing drinking water and water for the vessels and for the Army post out there, and it is my understanding that they have not included anything at all for that in the Army Bill. Is this the Ku Tree Reservoir project?

Commander ROUZER. No, sir. This project is to bring water from the Aiea wells.

Mr. KELLEY. I understand that the only estimate they had involved a water supply from the Ku Tree Reservoir project, and that was eliminated by the committee. As I understand it, there was no estimate at all for this water supply, or for their share of it.

Commander ROUZER. This would have been an additional estimate, or a supplemental estimate, because the water supply was not included in the original Army estimates.

Mr. KELLEY. This piping would have to be laid clear back to the springs?

Commander ROUZER. Yes, sir.

Mr. KELLEY. To supply the naval station and the Army post, and, of course, the Army would have to join with the Navy in doing that.

Admiral GREGORY. I can read you a description of the work that is outlined.

Mr. KELLEY. Just give us the salient points.

Admiral GREGORY. In brief, the general project provides for an increase of a million and a half gallons daily at the naval station. The need for this increase is immediate. This project covers the driving of three 12-inch artesian wells on the Aiea Military Reservation, that is now owned by the Government, with a 12-inch high-pressure delivery line across the naval magazine grounds direct to the Pearl Harbor Naval Station, at which point connection will be made with the line supplying water to Ford Island and Fort Kamehameha.

COST OF EXTENSION AND MILES OF PIPE TO BE USED.

Mr. KELLEY. Suppose you insert in the hearings at this point a rather concise statement of the cost of the project, showing the number of miles of pipe or feet of pipe required, and any other information that will be useful in determining what we will do with it.

Admiral GREGORY. I have all of that information here except as the miles of pipe. The estimated cost of the whole project is 6,000.

NOTE.—The length of pipe line is approximately $3\frac{1}{2}$ miles.

Mr. KELLEY. I am inclined to think that you will find that the navy has not asked for anything for this purpose at all, and that you are going ahead with one hand tied behind you.

Admiral GREGORY. The Navy's part of this is thirteen-eightieths, \$193,000, and, as we have \$40,000 available, the amount necessary to secure is \$153,000. It is likely also that we can make use of some of the material at Hampton Roads not in use, and if we have any material on hand that we can use, we propose to use it.

BLOCKING FOR DRY DOCK NO. 1.

Mr. KELLEY. You ask \$25,000 for blocking for Dry Dock No. 1. What do you have to say about that?

Admiral GREGORY. It appears that the blocking of the dry dock is not sufficient to take modern battleships, and we have found in the last few years in all of our docks that we have had to increase the amount of blocking to provide for the larger ships.

Mr. KELLEY. Are these what they call keel blocks?

Admiral GREGORY. They are keel blocks, bilge blocks, and bilge block slides. Up to within recent years the spacing of dry dock blocking has been 4 feet center to center, but it is now found that in the large ships we are building we have to provide blocking on 6-foot centers. So additional blocking is necessary in all these docks to make them suitable for the heavier ships we now have to dock.

Mr. KELLEY. You will have plenty of blocks on the Atlantic coast or you discontinue all of this building program.

Admiral GREGORY. It is not the same kind of block they use in shipbuilding work; that is soft wood, while what we have to use in a dry dock block is white oak; it is very rare and very difficult to find, as well as very expensive.

Mr. KELLEY. You will have plenty of blocking at the Philadelphia yard.

Admiral GREGORY. I do not know of anything that we would want to take. Blocking is something you may need on short notice, and when a ship has to be docked you must have the blocking there, and if you take the blocking away from the Philadelphia yard you might as well say that dry dock is closed for all work. It is a very essential part of the equipment of a dock and you must have the blocking there and available for use when required.

Mr. OLIVER. What is the estimate for that?

Admiral GREGORY. \$25,000.

Commander ROUZER. The original estimate was \$125,000. The estimate as submitted by the station was \$125,000, but it was cut by the department because it was felt we could get along by the addition of certain keel blocks.

Mr. KELLEY. You have considered the question of transferring blocks, I suppose, from the Atlantic over there?

Admiral GREGORY. There are none available on the east coast that can be shifted.

Mr. KELLEY. Nearly all of your heavy ships will be in the Pacific?

Admiral GREGORY. Not all of them; some of the older battles are still on the east coast and they require docking just the same as the newer ones. The fact is we are in the market to-day for additional blocking for the dry docks at Boston and at Norfolk in order to modernize those docks.

Mr. KELLEY. You are in the market for what?

Admiral GREGORY. For white oak material; we are going through the purchase of that at the present time. Those two docks are up to date in regard to the blocking equipment.

Mr. OLIVER. What about the durability of your blocks after you procure them?

Admiral GREGORY. Well, as a general thing those blocks will last from 10 to 15 years—oak blocks.

Mr. OLIVER. Were not all of these docks equipped with blocks during the war?

Admiral GREGORY. No, sir; both the Norfolk dock and the Boston dock are practically new docks.

Mr. OLIVER. These are the two new docks?

Admiral GREGORY. Yes, sir; the Commonwealth Dock at Boston and the last dock at Norfolk.

Mr. KELLEY. I have some recollection of an appropriation for blocks last year. Were they for the Commonwealth Dock or for the Pacific coast?

Commander ROUZER. For Puget Sound.

Mr. KELLEY. Where did you get the money with which to purchase blocks for the Boston yard?

Admiral GREGORY. For the South Boston dock there is still available a balance from the \$5,000,000 which was appropriated for purchasing and equipping the dock purchased from the Commonwealth of Massachusetts.

Mr. KELLEY. How much of a balance is left?

Admiral GREGORY. There is a very small amount; it is almost nothing. Commander ROUZER. \$16,000.

Mr. KELLEY. Where do you get the money to buy blocks for the Norfolk dock?

Admiral GREGORY. There was a special appropriation for the dock at Norfolk.

Mr. KELLEY. Have you any balance?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. How much is left in that fund?

Admiral GREGORY. Our records show there is about \$11,000.

Mr. KELLEY. How much is left in the Pearl Harbor dock appropriation?

Admiral GREGORY. I think that has all been closed out.

Commander ROUZER. That dock was completed in 1919.

PAVING, GRADING, AND RAILROAD EXTENSION.

Mr. KELLEY. Paving, grading, and railroad extension, \$38,000. What about that?

Admiral GREGORY. That is an item submitted by the station for the placing of paving on new areas that have been graded and for the continuation of the grading and for railroads which they need on the new areas. They submitted that report with the statement that it is exceedingly important that the work be done. The parti-

ends with regard to road work are road Central Avenue to Fourth Street, road back of 1910 Wharf, extension of First Street to Central Avenue, and roads around new shops.

Mr. KELLEY. How much is for paving?

Admiral GREGORY. It is not divided; it is all in one item of \$3,000.

Mr. KELLEY. You do not know how much is for paving, how much grading, or for railroad extension?

Admiral GREGORY. They have not divided the amounts.

Mr. KELLEY. How much railroad extension are you going to make?

Admiral GREGORY. They asked for \$75,000, but that has been cut the budget officer of the Navy already, thinking that it was hardly visible to ask for more than \$38,000, so we could not check the \$3,000 with the original estimate from the yard, anyway. We have deliberately cut it in half over the estimate submitted by the yard.

Mr. KELLEY. You do not know how much paving, grading, or how much railroad extension is provided for?

Admiral GREGORY. We would have to tell them to recommend in what way they could use the \$38,000 to best advantage, and I think ought to be put up to the station as to how they could best use it, view of the fact that we are cutting in two the estimate submitted by the station.

Mr. KELLEY. When they submitted their estimate did they not itemize it?

Admiral GREGORY. It was not itemized.

Mr. KELLEY. That is not a very good way to get appropriations.

Mr. BYRNES. You mean there is nothing to indicate how much of it is to be spent for paving?

Admiral GREGORY. I find a note here to the effect that the railroad work alone is estimated at \$38,000, so that would leave the balance for the grading and paving.

Mr. BYRNES. \$37,000?

Admiral GREGORY. Yes, sir; it would appear that \$38,000 is their estimate for the railroad work. The department has cut the station's estimate from \$75,000 to \$38,000, so presumably they are limiting it to the railroad work alone, and it could be called railroad extension if you chose.

Mr. KELLEY. \$38,000 is just for the track and ties?

Admiral GREGORY. And whatever is to be done in building it.

Mr. KELLEY. You do not know how many miles are to be built?

Admiral GREGORY. No, sir. I will insert information in detail as to the work contemplated under the \$38,000.

Pearl Harbor, paving, grading, and railroad extension.

Road to Puloa station, 1,500 by 22 feet, at \$3 square yard.....	\$11, 100
Railroad connection to new machine shop, 1,700 feet, at \$4 per linear foot..	6, 800
Roads around and to machine shop and acetylene plant, 2,110 by 20 feet, at \$3 square yard.....	14, 100
Railroad connection to one-story storehouse, 1,500 feet, at \$4 per linear foot.....	6, 000
Total.....	\$38, 000

NAVAL STATION, TUTUILA, SAMOA.

WHARF.

Mr. KELLEY. For a wharf at the Tutuila (Samoa) Naval Station you ask \$12,000. What about that?

Admiral GREGORY. The reason for that is that that wharf is literally on its last legs; it needs rebuilding in order to make it safe use.

Mr. KELLEY. What if it did go out?

Admiral GREGORY. Then you would have no landing place at

Mr. KELLEY. Who lands there?

Admiral GREGORY. It is the only wharf they have for the use of the station.

Mr. KELLEY. How much of a station have you there?

Admiral GREGORY. It is a small place; it is not a large station.

Mr. KELLEY. How many people have we there?

Admiral GREGORY. Thirteen officers and seventy-seven enlisted men.

Mr. KELLEY. Do you not think we had better let that wharf

Admiral GREGORY. It will have to come up again next year if we postpone it now.

Mr. KELLEY. Have you ever asked for this before?

Admiral GREGORY. I understand it was up last year.

Mr. KELLEY. For the first time?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. I think you ought to ask for these things at least three times.

Admiral GREGORY. But it is hard to save our faces, especially when the thing falls down in the meantime, and I understand this is the condition.

Mr. KELLEY. Does not the treaty require that the developments at all these places remain just as they are and that we shall do no more work?

Admiral GREGORY. It prevents us from making extensions and ordinary renewals and repairs are not excepted.

Mr. KELLEY. How long a wharf is it?

Admiral GREGORY. This wharf is 290 feet in length. It is that was built in the late nineties; it has a cast iron pier and foundation and wooden deck; it is the deck that needs renewal at the present time.

Mr. KELLEY. And it will cost \$12,000?

Admiral GREGORY. For the whole business; yes, sir.

NAVAL STATION, GUAM.

DEVELOPMENT OF SUBMARINE AND DESTROYER BASE.

Mr. KELLEY. Toward the development of a submarine and destroyer base, including the purchase of land, at the naval station, Guam you want \$200,000.

Admiral GREGORY. Well, I can not put up any argument for it

NAVAL STATION, CAVITE, P. I.

ORDNANCE STORAGE AND WATER-FRONT IMPROVEMENTS.

r. KELLEY. For the naval station, Cavite, P. I., you want 5,000 for ordnance storage, and \$48,000 for water-front improvements.

dmiral GREGORY. I think the ordnance storage is in violation of treaty, but I understand the water-front improvements represent repair; that is, the rebuilding of the wharf. It has been recommended in several estimates heretofore: I do not know but what it been recommended fully three times.

r. KELLEY. Improvements on a little front like this can come of your general fund. You can find enough to keep them from going to pieces, as well as the one at Samoa.

dmiral GREGORY. I do not think so.

r. KELLEY. Why do you want to make specific appropriations small items like that and carry several millions in a lump sum?

dmiral GREGORY. The trouble is that these items are far larger, especially this one at Cavite, then we ordinarily allot out of our lump-sum appropriation and, furthermore, the lump-sum appropriation is less than half what it ought to be. So that is why we do not we can take this out of the appropriation for maintenance.

r. KELLEY. What is your limit?

dmiral GREGORY. We have no stated limit for the reason that it depends on the urgency of the case. I am trying to think of the last item I recall, and I think it was something in the neighborhood of \$60,000 for repairing the floating dock at Portsmouth years

r. KELLEY. That is unusual, is it not?

dmiral GREGORY. That was very unusual, and that was on account of a particular emergency.

r. KELLEY. The lump sum is supposed to be a general repair and maintenance fund.

dmiral GREGORY. All things that are routine in nature or all things that we can not anticipate in advance, but it is our custom to refer to you in cases like this, where we know in advance that certain repairs are to be made, and put them down specifically.

r. KELLEY. These water-front improvements are not new affairs?

dmiral GREGORY. No.

r. KELLEY. They are just repair propositions?

dmiral GREGORY. Yes; and it is rebuilding in this particular case, and this is made all the more essential by reason of the fact that from now on the activities in the Philippines will be confined at Manila. Olongapo having been closed down, so that it is necessary to keep Cavite up to its full capacity.

COST OF WATER-FRONT IMPROVEMENTS.

r. KELLEY. What are you going to do with this \$48,000?

dmiral GREGORY. Practically rebuild the entire wharf.

r. KELLEY. How large a wharf is it?

dmiral GREGORY. Two hundred and seventy-eight by forty feet.

r. KELLEY. It is a timber wharf, is it?

dmiral GREGORY. It is on timber piles and it has a timber deck.

Mr. KELLEY. You are satisfied it will take \$48,000 to do the work?

Admiral GREGORY. Yes, sir; that would be the cost with creosote timber construction.

NAVAL STATION, OLONGAPO, P. I.

Mr. KELLEY. You say you have abandoned Olongapo?

Admiral GREGORY. I want to get in the statement that it has been reported that this pier is beyond the condition of ordinary repair; that it needs entire rebuilding.

Mr. KELLEY. You mean the one about which we have just been talking?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And I understand everything comes out of Olongapo?

REQUESTED TRANSFER OF OLONGAPO ESTIMATES TO CAVITE.

Admiral GREGORY. It comes out as Olongapo, but it is the decision and I think you have a communication from the department requesting, that these two items be transferred to Cavite. One is an item of \$45,000 for pontoon and one is an item of \$55,000 for power-plant improvements. There is on file a request from the department to have these items transferred to Cavite on account of their location there.

Mr. KELLEY. I have not had any notice of that.

Mr. SMITH. The letter dated February 2, 1922, was directed to Director of the Budget.

FEBRUARY 2, 1922.

SIR: Subsequent to the preparation of the Budget for 1923 an order was issued to me that all industrial activities at the naval station, Olongapo, be curtailed and the station be closed except for necessary caretakers, and all work in connection with repairs to vessels conducted at the naval station, Cavite. This action makes it necessary for the appropriations estimated for under the appropriation title "Naval Station, Olongapo, P. I." to be made. Owing, however, to the increased activities at the naval station, Cavite, it is considered of the utmost importance that the funds estimated for the naval station, Olongapo, be appropriated for expenditure at Cavite. The estimate of \$45,000 for a pontoon contemplates the construction from material on hand of a steel pontoon for a 20-ton floating derrick now located at Olongapo to replace a wooden pontoon which was condemned by survey in October, 1920. The structure and machinery of the derrick are in good condition. The use of this derrick results in large savings of time and money in the handling of heavy weights as it avoids the danger of accident by the use of improvised weight-handling devices. The \$55,000 estimated for power-plant improvements at Olongapo is required for expenditure at Cavite for the installation of turbo-generators, water-tube boiler, switch-board and a set of electrolytic lighting arresters which were obtained from Department surplus stock and delivered to the naval station, Cavite, for installation and for motor generators or rotary converters to change the current from alternating to direct in order to utilize the product with the present station system which is designed for the use of direct current. The present Cavite plant is made up mostly of second-hand machinery sent to the station sometime ago, which is now in bad condition and in need of constant repairs.

It is, therefore, urgently requested that the necessary steps be taken to have removed from the appropriation bill the two items under the appropriation title "Naval Station, Olongapo, P. I." and to have the same inserted under the appropriation title "Naval Station, Cavite, P. I."

The foregoing change involves no increase in the total amount of the Budget for the Naval Establishment.

Respectfully yours,

EDWIN DENNEY

The DIRECTOR OF THE BUREAU OF THE BUDGET,
Washington, D. C.

Mr. KELLEY. He did not communicate it to us. What is a pontoon?

Admiral GREGORY. The pontoon is the floating structure upon which this derrick is constructed and it is used for handling heavy weights; it is a floating crane; the pontoon is the base structure, the floating structure. The superstructure itself, the crane, has been delivered and is on hand; the material for the pontoon itself is out there. It is really the purpose to have this pontoon and the crane put together and then after completion it will be towed to Cavite and used there, it being a floating structure.

TREATY AFFECTING SOUTH SEA NAVAL BASES.

Mr. KELLEY. Under the terms of the treaty are we authorized to do this?

Admiral GREGORY. I do not think that this is anything which is prohibited by the treaty; it is simply a weight-handling appliance and has nothing to do with the defenses or supplies.

Mr. KELLEY. You think we could put in all the new equipment we want at any of these places?

Admiral GREGORY. It would not permit all the new equipment we would like to have, but I think it would permit this equipment.

Mr. KELLEY. I will read this from the treaty:

The maintenance of the status quo under the foregoing provisions implies that no new fortifications or naval bases shall be established in the territories and possessions specified; that no measures shall be taken to increase the existing naval facilities for the repair and maintenance of naval forces, and that no increase shall be made in the coast defenses of the territories and possessions above specified.

How about that, Admiral?

Admiral GREGORY. This was work that was practically begun some time ago, and it is not a new item; it is the renewal of pontoon for floating derrick which was authorized in previous years. I can refer to the act of June 29, 1906, if you have it here.

Mr. KELLEY. This is also provided:

This restriction, however, does not preclude such repair and replacement of worn-out weapons and equipment as is customary in naval and military establishments in time of peace.

PONTOON AT CAVITE AND OLONGAPO.

Did you have a pontoon at Cavite?

Admiral GREGORY. Yes; we have had a wooden pontoon there, which was surveyed and condemned in 1920. They started the construction of a steel pontoon at Olongapo some time ago, but the project was never completed, and this is really to complete a project which was authorized some time ago.

Mr. KELLEY. You have a power plant at Cavite, have you not?

POWER PLANT AT CAVITE.

Admiral GREGORY. There is a small power plant there, but even when the plant was installed second-hand machinery was used, and is now practically on its last legs. It is our desire to have renewals of the generators and engines that have been worn out; so it is requested to have the item transferred from Olongapo to Cavite.

Mr. KELLEY. I do not know whether that would be a violation of the treaty or not, probably not.

Admiral GREGORY. I do not think it would.

DATA RESPECTING POWER PLANT.

Mr. KELLEY. It is a replacement of worn-out machinery the like of which you have had before?

Admiral GREGORY. There are renewals and replacements. There are some transformers and a rotary converter required there for the reason that we are changing from a direct current to an alternating current plant. All alternating current equipment except air compressor is at Cavite.

CAVITE.

PRESENT.

Installation worn out. Four 75-kilowatt engine generators practically junk, worn out. One 20-kilowatt engine generator obsolete and inefficient; total, 60 kilowatts direct current.

Five 80-horsepower Scotch marine boilers and one 150-horsepower B. & W. boiler; total, 550 horsepower worn out and very inefficient; maintenance unusually high.

One 1,200 c. f. m. air compressor (very poor condition, obsolete, worn out).

PROPOSED.

Replacement all equipment except air compressor now at Cavite: Obtained by transfer. One 500-kilowatt rotary alternator with 300-kilowatt rotary converter and transformers for supplying necessary direct current; total, 500 kilowatts alternating current or 300 kilowatts alternating current and 300 kilowatts direct current.

One 500-horsepower Heine water-tube boiler obtained by transfer.

One new 1,200 c. f. m. air compressor.

Estimated cost.

Building changes for equipment.....	\$10,000
Removal of old equipment.....	4,000
Installation turbo alternator (transferred).....	2,000
Installation rotary converter (transferred).....	500
Installation one 500-horsepower boiler (transferred).....	6,000
Purchase and installation one 1,200 c. f. m. air compressor.....	10,000
Purchase and installation 2 condensers, with pumps.....	10,000
Purchase and installation piping.....	8,000
Relocation and installation flushing pump now in old submarine base power plant in C. P. P.....	500
Electric wiring and installation existing switchboard panels.....	3,000
Instruments.....	1,000
Total.....	55,000

Mr. KELLEY. You see, if we go into this and set a precedent that is in violation of the treaty right away, it is very simple, then, for other nations, similarly situated, to say, "You built a bigger power plant at Cavite; you put a pontoon out there, new cranes, and everything, and we are only doing just what you have done." So probably we had better leave this situation in the Philippines until things clear up a little.

URGENCY OF REPLACING CAVITE POWER PLANT AND PONTOON.

Admiral GREGORY. What I greatly fear is that if we do not get these you are going to have a station without any means of getting any light or power whatsoever and that is a serious situation. I would not like to face that situation.

Mr. KELLEY. That is, if you do not do it within a reasonable time?

Admiral GREGORY. Yes. The condition, while not anything like as serious as at Mare Island—the condition we were describing this morning—is a serious condition.

Mr. KELLEY. We have not had any estimate for making these improvements at Cavite.

Admiral GREGORY. I think one reason, in regard to the pontoon, that they have been assembling material heretofore, and it is now ready to be assembled, and in regard to the plant at Cavite it is because of the additional load put upon that plant by reason of the closing of Olongapo. The matter becomes urgent for Cavite, because heretofore Olongapo has really been considered superior to Cavite, and was superior as a naval station, but by reason of its being outside the Army defenses it was decided by the Navy Department that it would not be feasible to keep it running; consequently we are transferring everything to Cavite, which is really not equipped to do the work, and that is why we want the appropriation transferred to put that station in decent shape.

ABANDONMENT OF OLONGAPO AS NAVAL BASE.

Mr. KELLEY. Have you power plant facilities at Olongapo?

Admiral GREGORY. We have some power plant facilities. This estimate was originally put in for the renewal at Olongapo, but now we are not going to have anything at Olongapo at all.

Mr. KELLEY. You might change your mind about that and go back to Olongapo.

Admiral GREGORY. If we did, then we would need the money for Olongapo: the renewal is needed no matter which place is kept, but under the treaty we could not reopen Olongapo.

Mr. KELLEY. What ships are out there?

Admiral GREGORY. I can not tell you the names of the ships that are out there, but it is the Asiatic Fleet under Admiral Strauss, and the fleet bases at that station.

NAVAL AMMUNITION DEPOT, IONA ISLAND, N. Y.

REPAIRS TO SOUTH DOCK.

Mr. KELLEY. You are asking \$15,000 for repairs to the south dock at the naval ammunition depot, Iona Island, N. Y. What has happened to the dock there?

Admiral GREGORY. That is a dock which has worn out in long service, and it is represented to me by the Bureau of Ordnance that that is a repair it is necessary to make.

Mr. KELLEY. How much of a dock is this?

Admiral GREGORY. It is a dock that is 300 feet long and about 25 feet wide. It has been reported in the annual inspection as being in

poor condition and that its repair, on the basis just mentioned, is necessary.

Mr. KELLEY. What will a dock like that cost new?

Admiral GREGORY. That amount is practically for an entirely new dock.

Mr. KELLEY. Why do you not repair it out of the other fund and let it go this year? These are pretty hard times, Admiral.

Admiral GREGORY. We also have hard conditions to meet.

Mr. KELLEY. Is it so bad you could not repair it at small cost?

Admiral GREGORY. It has been reported to me, through the Bureau of Ordnance, that the dock is one that is needed so constantly that it is necessary to keep it in safe condition and that they think it ought to be repaired.

Mr. KELLEY. They must have another dock there if they are going to rebuild this one.

Admiral GREGORY. There is another dock called the north dock.

Mr. KELLEY. There must be another one there, because this is "Repairs to South Dock." There must be a north dock, an east dock, a west dock. I suppose in due course you will visit most of the public works, will you not, Admiral?

Admiral GREGORY. I hope to visit them in order to find out the urgency for all of these things.

Mr. KELLEY. Do you not think most of these can well go over until you have had time to inspect the necessities at each place?

Admiral GREGORY. I understand that in the preparation of the estimates that idea has been kept uppermost. In the first place, instructions were given to confine recommendations to those things that were considered immediately urgent; then the Navy Department, in the preparation of its budget, went over all of these items again, and from its point of view cut them very seriously, so that they have now gotten to the point where I have reason to believe there is not a cent requested but what is really needed.

Mr. KELLEY. That is a bad frame of mind to get into. That probably is not anybody in the Navy Department now who knows their own knowledge whether these are needed or not.

Admiral GREGORY. Well, when you have a report that 50 per cent of the piles of a certain pier have rotted through, as I just noted in the report on this structure, I can realize without looking at the structure that it is in pretty serious condition.

Mr. KELLEY. But you have not seen it?

Admiral GREGORY. No, sir.

Mr. KELLEY. And you have not seen it, Colonel Roosevelt. The naval ammunition depot at Iona Island, N. Y., where they want \$15,000 for repairs to south dock?

Colonel ROOSEVELT. No; but we will be able to find in the Navy Department some one who has seen it, and I believe the admiral will give a direct report.

Mr. KELLEY. We have the report but, of course, the officers naturally went to see the defects and the question might be whether they should be rebuilt or merely repaired. They are asking for an amount which will practically rebuild the dock, \$15,000.

Colonel ROOSEVELT. I believe we have in the department officers who have been to these various stations in almost every instance fairly recently, and they are consulted about these matters. I can

not give you this particular thing from my own knowledge, and, of course, never are we able, in making up our estimates, to have each particular place inspected by officers who will appear before you, because we are such a widely flung organization.

Admiral GREGORY. I might also say this, that when an officer who is a technical officer, a civil engineer, reports to the bureau, as he has reported here, that the dock is in such poor condition that unless it is put out of commission and repairs made in a few months it will have to be declared unsafe and impossible of use, I would rather take his view—

Mr. KELLEY (interposing). It hardly seems possible for it to get that way in a year.

Admiral GREGORY. It has not; it has been built for a great many years.

Mr. KELLEY. But your predecessor never made any such reports that?

Admiral GREGORY. It was reported last fall and has just come to light. As I started to say, I would accept a report from an engineer of more value than the reports of a hundred nontechnical officers who may have seen the thing.

NAVAL AMMUNITION DEPOT, LAKE DENMARK, N. J.

STANDPIPE AND ADDITION TO WATER MAIN.

Mr. KELLEY. For the naval ammunition depot at Lake Denmark, N. J., you are asking \$5,000 for addition to water main and \$21,000 for standpipe. What is the matter with the water supply at Lake Denmark?

Admiral GREGORY. That is a question of fire protection. There has been quite an extension of the plant at the ammunition depot and this is for the purpose of increasing the fire protection of that plant.

Mr. KELLEY. How much of an extension has been made there?

Admiral GREGORY. The project consists of approximately 2,000 feet of 4-inch cast-iron water pipe with four hydrants, and the building of a standpipe.

Mr. KELLEY. I say, what improvements have been made there in the way of increasing the depot facilities?

Admiral GREGORY. They have built from time to time additional storage places for explosives.

Mr. KELLEY. Did you build something there last year?

Admiral GREGORY. I think not last year, but during the war, and they did not provide the necessary fire protection for it at the time it was built.

Mr. KELLEY. How do you happen to be making improvements for the Bureau of Ordnance? I thought they attended to all their own affairs?

Admiral GREGORY. On public-works construction, I think that we are going to have more of a hand in that hereafter than before.

Mr. KELLEY. Where do they get the money for repairs?

Admiral GREGORY. They have an appropriation.

REASONS FOR BUREAU OF YARDS AND DOCKS DOING MAJOR REPAIRS.

Mr. KELLEY. Ordnance and Ordnance Stores takes care of the repairs?

Admiral GREGORY. Yes, sir. This is one item that they do not contemplate spending their appropriation for and it should be considered somewhat in the same light as Maintenance, Yards and Docks.

Mr. KELLEY. If they can build an armor plant at Charleston, W. Va., costing twenty-two or twenty-three million dollars, they ought not to have much trouble about a little thing like this.

Admiral GREGORY. My impression is that they had a special appropriation.

Mr. KELLEY. No; they never had a special appropriation.

Admiral GREGORY. That was in war time, when there were large appropriations for general purposes.

Mr. KELLEY. The same laws are on the statute books now that we had then, except what changes we made last year.

Admiral GREGORY. I think this shows a very healthy condition.

Mr. KELLEY. I do not think that follows at all. They are simply getting the money out of both places. They either ought to make all the repairs or you ought to make them. I have understood always that the ordnance people did not want your people around them, did not want them around ordnance ammunition, and did not want ordinary workmen about these places. That is the reason they put up for making their own repairs. We do not like to have this mixed up. We must have either one policy or the other. Otherwise, we can not tell whether to allow each specific sum or not.

Admiral GREGORY. I would strongly advise putting that in. The only result will be that it will divide the work among the individual bureaus instead of concentrating the work under the Bureau of Yards and Docks, which I think should be the case.

Mr. KELLEY. You think when it is new construction you should do it?

Admiral GREGORY. I think that we should handle the new construction as well as any major repairs.

Mr. KELLEY. What do you say, Colonel?

Colonel ROOSEVELT. I know in some instances your general statement of the case is accurate as to the past situation. They have done work of their own, but in general there is no question but that Yards and Docks should do the new construction work and the major repairs. The debate has centered around what are major and minor repairs. Unquestionably certain things have been slipped in occasionally where an extension was considered as a repair. With the Bureau of Yards and Docks functioning, it ought to unite all of the new work.

Mr. KELLEY. But in the case of repairs you think the Bureau of Ordnance should do the work?

Colonel ROOSEVELT. That is a horse of a different color. It depends on the size of the repair.

AMMUNITION DEPOT, FORT LAFAYETTE, N. Y.

MAGAZINE ROOF.

Mr. KELLEY. The next item is "Ammunition depot, Fort Lafayette, N. Y., magazine roof, \$10,000." That naturally does not come to you?

Admiral GREGORY. I think so, sir. I consider that a major repair. We all read only recently of a roof in this city collapsing because it was not properly built. When you come to structures such as magazines, you certainly should have roofs which will not fall in.

Mr. KELLEY. Magazines are generally little one-story shacks?

Admiral GREGORY. This is a pretty good roof.

Mr. KELLEY. Up there they used to build them out of stone until they learned better. Now they build them out of light material.

Admiral GREGORY. I would like for you to take a glance at the plan of that building. You will see how complicated it is. It is a big building. A roof to go over a building like that is not a minor repair.

Mr. KELLEY. Where is it?

Admiral GREGORY. At Fort Lafayette.

CONDITION OF PRESENT ROOF AND MAGAZINE.

Mr. KELLEY. What is the matter with the roof now?

Admiral GREGORY. It is leaking. It will have to have new framing galls and a new roof surface.

Mr. KELLEY. That seems to be quite a building?

Admiral GREGORY. It is.

Mr. KELLEY. What are the sides of the building?

Admiral GREGORY. The sides are of masonry construction.

Mr. KELLEY. An explosion there would kill everybody within a reasonable distance on account of the flying stone?

Admiral GREGORY. I would not want to be near it.

Mr. FRENCH. Is the whole space covered over or is that a large court?

Admiral GREGORY. It is a court. That [indicating] is a section through one of the side walls.

Mr. KELLEY. Is it an old building?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. I should think that you could build a magazine better than that for \$10,000?

Admiral GREGORY. We might be able to, but they need an ammunition depot there.

Mr. KELLEY. What do you think about this, Colonel? It is a magazine building made of masonry. I notice all the new ones are made of light material.

Colonel ROOSEVELT. The doctrine at present is that they should not be built of masonry, because masonry furnishes flying fragments in case of an explosion. Whether you could build a new building for \$10,000 which would serve the purpose, I do not know; I do not think you could.

Admiral GREGORY. No; I do not think so.

Colonel ROOSEVELT. I do not know how many buildings you could build for \$10,000. I should think that it would cost a great deal more. I do not know how large this is. I can not tell you what

the scale is and how complicated it would be. I would have to look over that long before I would be prepared to say that you could replace it for \$10,000.

Admiral GREGORY. The ammunition depots for ordnance cost about \$100,000. It depends on the size. That is a building containing 50,000 square feet of floor here [indicating].

Colonel ROOSEVELT. And how much here [indicating]?

Admiral GREGORY. It is a two or three story building and it would be hard to say.

Mr. KELLEY. The roof leaks?

Admiral GREGORY. And it needs rebuilding to make it safe.

NAVAL AMMUNITION DEPOT, CHARLESTON, S. C.

MAGAZINE FOR WAR HEADS.

Mr. KELLEY. The next item is, "Naval ammunition depot, Charleston, S. C.: Magazine for war heads, \$36,000."

Colonel ROOSEVELT. That is for the war-head torpedoes. They can not be kept with the others, and this is very important.

Mr. KELLEY. If you do not keep the destroyers down there, will you need the depot there?

Colonel ROOSEVELT. We will need a depot somewhere and I would want to check up as to whether we have another available depot.

Mr. KELLEY. You might carry the torpedoes there in any event?

Colonel ROOSEVELT. We might carry them in storage.

Mr. KELLEY. How large a building would you put up there?

Admiral GREGORY. That is a building 50 by 108.

Mr. KELLEY. Please state again the necessity for that?

Admiral GREGORY. That is for the purpose of storage of torpedo warheads. That is a station for the destroyers.

Mr. KELLEY. Have they any storage there to take care of these torpedoes? They must have a lot of empty shops which they could use?

Admiral GREGORY. The ordnance material would not be in the section devoted to storage.

Colonel ROOSEVELT. It can not be.

Mr. KELLEY. They have to have a separate place?

Admiral GREGORY. Yes, sir; with special equipment, racks, and cranes.

Mr. KELLEY. How are they getting along there now? Do they have all the destroyers there?

Admiral GREGORY. There will be before the end of the year a great many destroyers there. They are gradually putting them out of commission at a rapid rate and it is necessary to remove and store the war heads when this is done.

Colonel ROOSEVELT. They would have to store certain stores in a combination which they consider highly dangerous.

NAVAL AMMUNITION DEPOT, PUGET SOUND, WASH.

FUSE AND DETONATOR HOUSE.

Mr. KELLEY. The next item is, "Naval ammunition depot, Puget Sound, Wash.: Fuse and detonator house, \$8,000."

Admiral GREGORY. That is an additional building at the ammunition depot at Puget Sound. They are constantly enlarging that place by reason of the increasing number of ships that is based on Fremont and that is simply an additional building called for to meet the increasing needs.

NAVAL AMMUNITION DEPOT, MARE ISLAND, CALIF.

ADDITIONAL STORAGE FACILITIES.

Mr. KELLEY. The next item is, "Naval ammunition depot, Mare Island, Calif.: Additional storage facilities, \$100,000." I do not think we can carry that. Is this an additional building?

Admiral GREGORY. It is an additional building; yes, sir.

Mr. KELLEY. Please tell us the necessity for it.

Colonel ROOSEVELT. The necessity for that, again, is the increased number of units that is being based out there and the necessity for having their adequate war supply of ammunition.

Mr. KELLEY. Having more ships in the Pacific, you have to have more places for the storage of shells?

Colonel ROOSEVELT. Yes, sir.

Admiral GREGORY. This has been requested very strongly by the Bureau of Ordnance, which realizes the conditions to be very cramped and cramping more, which is unsafe.

Mr. KELLEY. Can not they store shells with perfect safety in temporary buildings, cheap buildings?

Admiral GREGORY. They are of light construction, but they have to be strong enough.

Mr. KELLEY. And away from the rest of the plant?

Admiral GREGORY. Yes, sir; they are in a separate group of buildings; the ammunition depots.

Mr. KELLEY. How far away from the shops are these shells stored?

Admiral GREGORY. In the neighborhood of two or three miles.

Colonel ROOSEVELT. That is what complicates the situation, Mr. Chairman, because two or three times I have said myself, "Why do not you use this building?" and I have found it was too close to others inhabited or being used.

NAVAL AMMUNITION DEPOT, PEARL HARBOR, HAWAII.

ADDITIONAL STORAGE FACILITIES.

Mr. KELLEY. The next item is, "Naval ammunition depot, Pearl Harbor, Hawaii: Additional storage facilities, \$80,000." Is that a new building?

Admiral GREGORY. That is an extension of storage; it is presumably a new building.

Mr. KELLEY. That makes a difference. If it is an addition to an existing building we can consider it. If it is a new building, we cannot.

Colonel ROOSEVELT. That is separate?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. It is for the same general purpose of storing shells and other ammunition out there?

Admiral GREGORY. Yes, sir.

NOTE.—Included in the estimates for the fiscal year 1922 were a number of for storage facilities at the naval ammunition depot, Pearl Harbor, Hawaii, amounting to \$342,000. This amount was to provide, among other things, for a certain mine storage as determined by the Navy Department. In view of the fact that \$177,000 was appropriated, however, it was not possible to provide for the full storage required, and the sum of \$80,000 asked for in the present estimates is to provide for the balance of mine storage deemed necessary.

Mr. KELLEY. Because of the presence of the fleet and the increase in the number of destroyers, submarines, and other classes of vessels.

Colonel ROOSEVELT. All classes of vessels and torpedoes as well as other ordnance material.

LIGHTING AND POWER EXTENSION.

Mr. KELLEY. "Lighting and power extension, \$15,000." How far is this ammunition depot from the yard at Pearl Harbor?

Commander ROUZER. About 5 miles.

Mr. KELLEY. They have a power plant of their own?

Commander ROUZER. Yes, sir.

Mr. KELLEY. What about the power extension, what does it mean?

Commander ROUZER. There is a special power house for the ammunition depot, air is provided for the locomotive.

Mr. KELLEY. And this is to increase the power plant?

Admiral GREGORY. No. They take their power from the main yard nearby, but the transmission lines throughout the station from the yard are now overloaded and they wish to increase the size of the conductors and to increase the distributing lines around the station itself. They have been working with some very temporary lines there which have been a source of complaint because they are apt to be blown down in a heavy wind. They want to put the lines underground where they will be safe and not be blown down. They are apt to cause an explosion.

Mr. KELLEY. That is, to put the transmission lines from the regular power plant underground?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. That would take \$15,000 altogether?

Admiral GREGORY. Yes, sir: \$15,000.

NAVAL TORPEDO STATION, KEYPORT, WASH.

TORPEDO STORAGE.

Mr. KELLEY. The next item is, "Naval torpedo station, Keyport, Wash.: Torpedo storage, \$45,000." Admiral Parks cut that last year. Why have you it in this year?

Admiral GREGORY. They have but one building for the storage of torpedoes now. This is to provide additional storage for approximately 602 torpedoes.

Mr. KELLEY. I remember something about it last year. The admiral did not think it was at all necessary.

Admiral GREGORY. It has been made necessary because of a re-estimate from Ordnance that additional storage is needed and that is why the estimate is renewed. Perhaps it was not sufficiently understood last year to press the point.

Mr. KELLEY. My recollection is that it was only a question of a little more convenient storage space. There was something about the length of the torpedoes that made the building rather inconvenient, but there was plenty of room except on account of the length of the torpedo. It used up more space than was really necessary if the building had been built according to proper dimensions. It is not the right size building. It took too much space to store a certain number and they wanted a new building of the right size.

Admiral GREGORY. I know that the building was practically filled to its fullest capacity two years back.

Mr. KELLEY. What do you remember about that, Commander Rouzer?

Commander ROUZER. I have some testimony which was given last year along that line.

Mr. KELLEY. Read it. What did the admiral say?

Commander ROUZER (reading):

Admiral PARKS. They test them there at Keyport. They overhaul them and test them.

Mr. KELLEY. They test them where they make them and then test them again out there?

Admiral PARKS. Where they are overhauled they are tested. They have a shop at Keyport. I think these piers could be left out this time.

Mr. BYRNES. That item amounts to \$70,000?

Admiral PARKS. Yes, sir.

Mr. KELLEY. They will be all right for another year?

Admiral PARKS. I think so. When I was out there in November it did not look to me as though it was absolutely necessary to increase the output at the Keyport station very much at this time.

Mr. KELLEY. You thought that the plant was large enough to accommodate the activities there without additional facilities?

Admiral PARKS. It looked pretty near so. The torpedo storage house was built when a shorter torpedo was in use, and the racks that are built at right angles to the hulls will not accommodate the longer torpedoes and give the necessary handling space between two rows of racks in the same building. It will be desirable to provide a larger building for handling the storage of the longer torpedoes.

Mr. KELLEY. But for the present, this item can be omitted?

Admiral PARKS. I think it can stand until another year. That is based upon the understanding that we must force the bill this year to a low point.

Mr. KELLEY. Is it any more necessary to go in this year than when we went out last year?

Admiral GREGORY. Except it has been postponed a year already, and it is becoming more urgent. The placing out of commission of so many destroyers makes it necessary to store more of their equipment ashore.

NAVAL TRAINING STATION, GREAT LAKES, ILL., SHORE PROTECTION AND HARBOR IMPROVEMENT.

Mr. KELLEY. The next item is, "Naval training station, Great Lakes, Ill., buildings: Shore protection and harbor improvement, \$25,000." What about that, Admiral?

Admiral GREGORY. That is for the purpose of meeting our obligations which were entered into by authority of previous legislation. The contract was let up to the full amount of the appropriation.

Mr. KELLEY. Do you mean the full amount of the authorization or appropriation?

Admiral GREGORY. We now need the balance of the appropriation in order to meet the obligations which will come on contracts now in force.

Mr. KELLEY. How much of a contract have we for work there?

Admiral GREGORY. We have one contract alone of \$975,000.

Mr. KELLEY. What was the limit of cost on this improvement?

Admiral GREGORY. The act of July 11, 1919, authorized the limit of cost of \$1,500,000.

Mr. KELLEY. And we have spent \$1,000,000 there?

Admiral GREGORY. I can say this, that we have overobligated the present appropriations by the sum of \$413,500, but that amount is within the limit of the appropriation so the \$425,000 now called for is not only the balance of the appropriation but also to meet obligations under the present contract.

Mr. KELLEY. You have obligated \$1,113,000. You have had \$700,000. That would leave \$413,000 instead of \$425,000.

Admiral GREGORY. We are now \$413,000 overobligated.

Mr. KELLEY. Why do you want \$425,000?

Admiral GREGORY. That is for the completion of the contract and small contingent items that we need for finishing up, putting the finishing touches on that work.

Mr. KELLEY. Does that complete this improvement?

Admiral GREGORY. That completes this improvement as far as we propose to push it.

Mr. KELLEY. The contract is now in process of execution; are they doing the work?

Admiral GREGORY. Yes, sir; the work is going on. Not just at this minute, because they stopped during the winter, because everything froze. They will start in the spring with the full expectation of completing it the next fiscal year.

Mr. KELLEY. Do you know anything about this place?

Admiral GREGORY. I have not been there.

Mr. KELLEY. Have you been there?

Commander ROUZER. No, sir.

MARINE BARRACKS, SAN DIEGO, CALIF.

FURTHER DEVELOPMENT OF BASE AND PURCHASE OF LAND.

Mr. KELLEY. The next item is, "Marine Barracks, San Diego, Calif., \$500,000." Will this finish up that job?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. These contracts are outstanding and the work is going forward?

Admiral GREGORY. It is going on right along.

Mr. KELLEY. When will this work be finished?

Admiral GREGORY. This next fiscal year, we hope.

Mr. KELLEY. We understand about the little piece of land; General Lejeune told us about that the other day. How many men will this plant accommodate?

Admiral GREGORY. One thousand eight hundred men.

NAVAL HOSPITAL, SAN DIEGO, CALIF.

Mr. KELLEY. The next item is, "Naval hospital, San Diego, Calif., \$500,000." Have you begun that naval hospital?

Admiral GREGORY. Oh, yes; that is under way.

Mr. FRENCH. It is not one structure; there are many small buildings.

Admiral GREGORY. Yes, sir; a number of different wards.

Mr. KELLEY. How much have you spent there?

Admiral GREGORY. We have three contracts out there aggregating total of \$855,000, a little over. That work is about 99 per cent completed; it was at the end of February. Now, there is other work that should be done—building the additional wards.

Mr. KELLEY. How much money have you had altogether; what is your first appropriation?

Admiral GREGORY. \$750,000, allotted from "Hospital construction," act of July 1, 1919.

Mr. KELLEY. And \$500,000 last year?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. You want \$500,000 this year, making \$1,750,000?

Admiral GREGORY. That will complete the work.

Mr. KELLEY. Why not change that language from "To continue" to "To complete"?

Admiral GREGORY. We do not advise any change in the wording existing statutes, although in so far as the bureau is aware it will be necessary to ask for additional funds to complete, provided the amount requested is granted.

The reason for that was that heretofore there has been a complete proposition there to cost \$1,975,000.

Mr. KELLEY. That was the original limit?

Admiral GREGORY. Yes, sir. This \$500,000 that we have requested this year would bring up the total to \$1,750,000.

Mr. KELLEY. The cost of material has gone down so that this \$750,000 would build more hospital facilities than you contemplated under the original estimate of \$1,975,000?

Admiral GREGORY. Of course, we are taking advantage of the reduced costs, and, furthermore, there have been simplifications of the original plans which have enabled us to get more for our money.

Mr. EVANS. The first appropriation was an allotment?

Commander ROUZER. Yes, sir; \$750,000 allotted from "Hospital construction," act of July 1, 1919.

Mr. KELLEY. How many patients will you accommodate now when you get this \$500,000?

Admiral GREGORY. The number of beds provided by the construction heretofore approved is 150, and the number that would be covered by this additional appropriation is 200, making a total of 350.

Mr. KELLEY. This is quite a hospital, with 300 beds costing \$750,000.

Admiral GREGORY. That includes all the service buildings, power plants, laundry, and things of that kind. It must be considered that we are just going into Southern California with a number of these very big stations, and the need for hospital service on the west coast is very great.

SUBMARINE BASE, SAN PEDRO, CALIF.

Mr. KELLEY. You have an item of \$100,000 for submarine at San Pedro, Calif.: Has that been authorized by law?

Admiral GREGORY. That has not been authorized.

Mr. KELLEY. And probably will not be.

Admiral GREGORY. This is for the purchase of land and its development.

SUBMARINE BASE, PEARL HARBOR, HAWAII.

GRADING, RAILWAY, ETC.

Mr. KELLEY. You have an item of \$25,000 for grading, rail and so forth, at the submarine base at Pearl Harbor. What is that, or how much is estimated for the grading, how much for railroad, and how much for the "so forth"?

Admiral GREGORY. I find that that has been put in as one item of \$175,000. That was the estimate from the station, and has been cut, as you will see, to considerably less than one of that amount by the department, or it has been cut down \$25,000.

Mr. KELLEY. I wonder what they cut out.

Admiral GREGORY. I imagine that would refer to the railroad construction, but I am not able to give you the details or the figures. It is quite customary, as in the other development we touched on a moment ago, where the railroad work was the work approved—

Mr. KELLEY (interposing). On that amount of information I guess we had better cut it out.

Commander WARREN. In regard to that station, a group of submarines were sent out there, and an officer was sent out to command this station. Before he started out, he said to me, "Do you know what is out there?" I said, "Yes, there is not anything." I said to him, "You had better take your station out with you." I worked for about a week for him through the department, and the result was that he took his submarine station out with him on a collier. He practically built the whole thing himself. Now, I understand they are trying to get some sort of railway facilities.

Mr. KELLEY. We can not appropriate money on such general information as that. We want to know how much grading is to be done and how much railway is to be built, etc.

Commander WARREN. I do not know the details.

Mr. OLIVER. You do not know whether it would complete the work?

Mr. KELLEY. We do not know what it is for.

Mr. OLIVER. Has Yards and Docks any further information in regard to this?

Admiral GREGORY. We probably have some information at the bureau on this item, and I would like to be permitted to submit a description of it in the record. I have no doubt, in view of the estimate of \$25,000, that it would certainly be desirable to proceed for it. I have no doubt that the \$25,000 is absolutely essential to start the work.

Mr. KELLEY. They have tenders for the submarines out there, have they not?

Admiral GREGORY. Yes, sir.

Mr. OLIVER. I think it is important that you put that submarine base in good condition. I have always felt that it was an important submarine base. Now, whether you have sufficient data here to justify the committee in making an appropriation for work that you are not prepared to state is important is questionable, but I recognize the importance of providing for a submarine base out there. I think that is most important, and I would like for you to look it up and see what information you can supply us.

Admiral GREGORY. I think we will be able to give you some information on that and I will insert it.

NOTE.—It is contemplated providing extensions to the present track system to new piers for which an appropriation was made during the fiscal year 1922, approximately 750 linear feet of additional track being required, at an estimated cost of \$500. There is at the present time but one road leading from the entrance of the submarine base to the water front with a small section of road along the water front. It is contemplated providing approximately 4,000 square yards of pavement to the piers and around the various groups of buildings at an estimated cost of \$12,000. The balance of \$8,500 is contemplated grading along the northern part of the submarine base in the vicinity of the inboard ends of the new piers, part of this grading being necessary in conjunction with the railroad and road work. It is believed that the item "Grading, railway, etc., \$25,000, submarine base, Pearl Harbor, Hawaii," should read "Grading, railway and highway development, \$25,000, submarine base, Pearl Harbor, Hawaii."

Mr. KELLEY. How far is this base from the navy yard?

Admiral GREGORY. I do not know.

Mr. KELLEY. You do not know what is there?

Admiral GREGORY. No, sir; I have never been there myself.

Commander ROUTER. It is near the yard at Quarry Point.

Mr. KELLEY. What do you have there now in the way of shops, piers, docks, etc.?

Admiral GREGORY. There must be 2 or 3 piers and about 15 or 20 buildings. There are apparently barracks and shop buildings, but the nature of them does not appear here.

Commander WARREN. It was salvaged building material that was taken out on this collier.

FOR BATTERY STORAGE AND OVERHAUL BUILDING.

Mr. KELLEY. For battery storage and overhaul building, you estimate \$64,000.

Admiral GREGORY. That is an estimate that was submitted a year ago, and it is now renewed. The Bureau of Engineering makes a strong recommendation for the building of the building.

Mr. KELLEY. What is the difference between battery storage and battery charging?

Admiral GREGORY. These things are usually done either in the same building or in adjacent buildings. The charging station is where the batteries are charged, requiring service connections or electrical connections for that purpose. The storage simply means charging the batteries ashore to be stored until such time as they may be put into use. The two things really go together—that is, the battery storage and overhaul building.

Mr. KELLEY. You take these batteries out of the submarines?

Admiral GREGORY. It might be called a battery storage building. They take them out of the submarines and store them or recharge them before issuing them again.

Mr. KELLEY. Is this a new building?

Admiral GREGORY. It is a remodeling and extension of the present building. This is required at the submarine base. The original estimate was \$75,000 a year ago, but it has been cut to \$64,000 because of reason of reduced costs.

Mr. KELLEY. It would not be in addition to the battery-charging installation building that we authorized last year?

Admiral GREGORY. No, sir; it would not.

Mr. KELLEY. This is a sort of shop in which batteries are overhauled and stored?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Has the contract been let for this battery-charging installation?

Admiral GREGORY. That is being built, and all of that amount has been allotted. It has all been obligated so far as the bureau is concerned.

Mr. KELLEY. How much of that money has been spent?

Admiral GREGORY. The entire amount has been obligated.

Mr. KELLEY. How much has been spent?

Admiral GREGORY. We have no recent report of expenditure of that.

Mr. KELLEY. Commander Warren, what about this battery-charging installation? In the bill last year we authorized a battery-charging installation.

Commander WARREN. Yes, sir.

Mr. KELLEY. This year you ask for a battery storage and overhauling building. Why can you not add something to the other building? Would it not be more economical?

Commander WARREN. If you did, it would not make much difference.

Mr. KELLEY. Do you have them charged at one place and overhauled at another? Why not have them together?

Commander WARREN. The station has a small power plant and the wires lead down to the boats.

Mr. KELLEY. Where is the installation?

Commander WARREN. That is in the building. When you go to overhaul a storage battery, you take it out of the submarine and carry it to a building. You must have a certain amount of reserve stock which must be racked and cared for and protected from weather. That is true, because the plates are easily broken. There is a certain amount of chemicals involved. For instance, if a man wears a pair of shoes around a battery they will fall off on their feet in a few weeks, due to the action of the sulphuric acid in the batteries. We must have concrete floors for them.

Mr. KELLEY. In charging the batteries, you simply connect them up with the wires?

Commander WARREN. Yes, sir.

Mr. KELLEY. The installation is simply an electrical arrangement on shore?

Commander WARREN. Yes, sir; it is a power plant.

Mr. KELLEY. This is a building of a different character, where batteries are overhauled and stored?

Commander WARREN. Yes, sir; but it could be added to the building if they wanted to do that.

Mr. KELLEY. If they are different kinds of buildings it would not be an addition.

Colonel ROOSEVELT. It would simply be two buildings grouped together.

Admiral GREGORY. It would appear to be one proposition by reason of the fact that last year in the estimates they called for 100,000, and it was cut to \$50,000.

Mr. KELLEY. That would not necessarily follow.

Admiral GREGORY. This would appear to be the completion of a plan they had in mind a year ago.

DESTROYER BASE, SAN DIEGO, CALIF.

STORAGE OF WAR HEADS AND TORPEDOES.

Mr. KELLEY. The next item is, "Destroyer base, San Diego, Calif.: storage for war heads, \$60,000; storage for torpedoes, \$140,000; all, \$200,000." That is not authorized by law, and we will not do that with that.

NAVAL AIR STATION, SANDY POINT, WASH.

The next item is for a naval air station at Sandy Point, Wash. That is not authorized by law.

Admiral GREGORY. No, sir; that is not authorized.

NAVAL BASE, ALAMEDA, CALIF.

Mr. KELLEY. The next item is for a naval base at Alameda, Calif., and that is not authorized by law.

Admiral GREGORY. No, sir.

Mr. KELLEY. All of the items on page 122 go out.

MAINTENANCE, REPAIRS, AND PRESERVATION, BUREAU OF YARDS AND DOCKS.

Mr. KELLEY. For maintenance, repairs, and preservation, Bureau of Yards and Docks, you are asking \$6,750,000, as against your current appropriation of \$7,500,000.

Have you made a distribution of that by yards? I understand that is not hard and fast but it is what you base your totals on.

Admiral GREGORY. This sum of \$6,750,000 is not based on the yards' needs, nor is the sum total the amount needed at each individual yard; it is simply a tentative cut from the amount of the appropriation made last year, and that is the only defense there can be for this figure. We know it costs a great deal more than that to maintain the various navy yards, but we simply spend to the limit that, and then the balance of the work we get in other ways.

Mr. KELLEY. What do you mean by that?

Admiral GREGORY. A great deal of the plant is maintained by charging it up to the indeterminate expense account instead of direct to the appropriation. It is a very difficult matter for us to tell how much is actually expended for maintaining the various navy yards because of the accounting system being such that you can not tell.

It has been explained, I understand, in former years, so it ought to be pretty well understood that the appropriation, maintenance, is not sufficient for the functions which are placed by it upon the Bureau of Yards and Docks.

Mr. KELLEY. That would depend a good deal on whether the yards were operating or not.

Admiral GREGORY. That would not make a great deal of difference. It would depend more on the value of the things to be maintained rather than upon that.

Mr. KELLEY. Let us see about that. You bear a share of the expenses of the power used outside of the shops? You pay a proportion of the power which is used outside of the shops, do you not?

Admiral GREGORY. At industrial yards it is practically nothing. We take the cost of lighting the yard that is charged to us, but we do not have to take the cost of very much of the power that is produced, for the reason that we do not have much productive labor upon which that power is applied. That is nearly all apportioned from the appropriations for repairs to ships; but, of course, where we operate stations the charges generally are taken against maintenance.

Mr. KELLEY. You maintain all the locomotives in the yards out of this fund?

Admiral GREGORY. And, as a general thing, the cost of maintaining those locomotives is a charge against indeterminate expense which is distributed among the other appropriations which have productive labor.

Mr. KELLEY. That is news to me. I thought you took care of everything that moves about the yard.

Admiral GREGORY. We should and in the old days we did, but gradually the appropriation, maintenance, has been falling behind the needs.

Mr. KELLEY. Then if you do not have enough to take care of the yards the Bureau of Construction and Repair and the Bureau of Engineering pay it out of their repair bills, do they?

Admiral GREGORY. The work is ordered to be done by the commandant or manager of the yard, and then the accounting officer distributes the cost of that to the other appropriations according to the amount of productive labor they have.

Mr. KELLEY. Where do you come in?

Admiral GREGORY. The bureau does not come in at all, and a lot of that we do not know; we do not know where the expenses go; that is, for a long time afterwards, and then the amounts are uncertain.

Mr. KELLEY. What do you pay for in these yards?

Admiral GREGORY. We simply pay to the limit of our allotments that we have to spend on those yards. Then there are certain things like the clerical and drafting force, watchmen, the cleaning of streets, and that kind of work, and repairs to military buildings, which are made a direct charge against "maintenance," but there are many other charges which are connected with the output of the yard which it is possible to charge to general expense and that is distributed to the other appropriations.

Mr. KELLEY. The fact is this, that if we give you a certain sum of money for this purpose you allocate that to the various yards and stations for maintenance, repair, and preservation?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. If that is insufficient for that purpose the difference is charged against the work that is done in the yard and paid for out of her appropriations?

Admiral GREGORY. That is the way it is done, although you must remember that as the year goes by problems arise every day which make it necessary to charge work in the yard to expense accounts other than the amounts allotted; the Bureau makes a quarterly allotment to each navy yard and then the yard figures from that quarterly allotment what kind of charges they can take, for example, such things as clerical force, watchmen and fire protection, and those things must be taken under "maintenance." In the event that certain work is necessary which they feel can not be made a charge against it, because of not having sufficient funds, they say, "Well now, let us charge this to general expense, because it is something that can be distributed among various items."

Mr. KELLEY. What charges are absolutely, uniformly, and always made against your fund in every yard?

Admiral GREGORY. Well, such things as charges for grounds.

Mr. KELLEY. Everything that is done in the upkeep of the grounds?

Admiral GREGORY. Everything on grounds.

Mr. KELLEY. That includes the taking care of the docks?

Admiral GREGORY. Oh, no; that is the clearing and cleaning the yard; it means the removal of refuse, the cutting of grass.

Mr. KELLEY. Mowing the lawn, and that sort of thing?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. What else?

Admiral GREGORY. Buildings.

Mr. KELLEY. Any repairs and alterations of any kind on any building.

Admiral GREGORY. It should be done, but it is not on a good many of our buildings.

Mr. KELLEY. Let us leave that out. Let us put in only the things you know come out of this fund and always come out of it. How about the repairs to the buildings, painting?

Admiral GREGORY. Well, sometimes we make repairs to certain of our buildings that are charged to shop expense; if they find the quarterly allotment is not sufficient and they have not got the money they charge it to shop expense. That ought not to be, of course, but it is true sometimes.

Mr. KELLEY. How about the power plant?

Admiral GREGORY. In the power plant we handle the major repairs, but the minor repairs and operation are prorated; that is a charge against the power plant that is prorated to the various items of productive labor which receive the benefit of power.

Mr. KELLEY. How about the trucks and automobiles?

Admiral GREGORY. There again we make the major repairs, the major overhaul, but the minor work of touching up here and there, slightly overhaul, supplies, and so on, are also prorated, and that is again a general expense.

Mr. KELLEY. You do the work and the other people pay the bills?

Admiral GREGORY. We do the work and we have to make the charges in that way because the appropriation is not sufficient.

Mr. KELLEY. Suppose we wiped this out entirely and divided it among the other bureaus?

Admiral GREGORY. Then you would never get any report at all as to what the work costs.

Mr. KELLEY. How much better off are we now?

Admiral GREGORY. You are not so much better off, but what ought to be done would be to rebalance the appropriation so that the charges will be made direct charges.

Mr. KELLEY. There is not a man living who can tell how much money you ought to have in this fund.

Admiral GREGORY. It could be determined approximately.

Mr. KELLEY. If you had a general principle by which you were operating you could, but from all you have said it appears that if you have money with which to repair a building you repair it out of this fund; but if a building needs repairing and you have not the money, you charge it up to the work that is being done in that building?

Admiral GREGORY. You charge it up to your shop expense, and then it disappears into the cost of production. That was made possible by legislation which was passed several years ago, June 30, 1914. I do not think that was the intention of it, but that is the way it has been working.

Mr. KELLEY. If we should make this \$5,000,000, you would spend it; you would apportion it and do whatever work could be done with the \$5,000,000, and then anything else that has to be done in the shops or yards will appear in the cost of repair or in the cost of manufacture?

Admiral GREGORY. Yes.

Mr. BYRNES. There is no way of limiting the fund as long as you have the power to use other funds, is there?

Admiral GREGORY. No; there is no way of doing it except by the need for work as it arises.

Mr. FRENCH. It amounts to a supplemental fund to supplement each of these other funds, does it not?

Admiral GREGORY. Yes.

Mr. FRENCH. They supplement this fund and your fund supplements their fund?

Admiral GREGORY. Yes, sir; except that it does not go that way.

Mr. FRENCH. Some way should be found to write down absolutely what you must do and have the money to do, and you should not draw money from these other funds. It would seem to me that would be a helpful thing.

Admiral GREGORY. The department is attempting at the present time, through a revision of its accounting system, to secure the greatest amount of direct charges against appropriations; that is a desirable thing because then you will have your charges made directly and you will know exactly what your money goes for. Now, the reason why we have paid for these indeterminate charges is that the appropriation, maintenance, primarily is too small, and if that were increased by enough to take the direct charges, then your accounting system would be vastly simplified and you would also get the cost of doing work which, at the present time, you do not get.

Mr. KELLEY. Colonel, we have run into a situation here which is hopeless. It is in connection with the appropriation for yards and docks, maintenance, repairs, and preservation.

Colonel ROOSEVELT. That is a general catch-all appropriation they've had in there and it is one of the things with which we have had a great deal of difficulty because, although it catches all, it does not catch quite all, and you never know where it begins and where it leaves off.

Mr. KELLEY. Worse than that, the Admiral says it does not make any difference what sum we put in here, he will apportion that among the yards and let it go as far as it will, and then whatever repairs, whatever preservation or whatever maintenance may be required over and above the amount carried here will be charged to the work that is being done in the yard and go in as the cost of repair or the cost of production and paid out of other funds, so that no living person can tell what it is costing to repair or run any yard, nor can you tell the cost of repairing anything or the cost of manufacturing anything.

Admiral GREGORY. I understand this has been up before and is something new at all.

Mr. KELLEY. We have had it before us in other years but I think you are a little bit franker about it than anybody else has been in stating your practice.

Admiral GREGORY. I am just trying to be honest about it.

Colonel ROOSEVELT. As a matter of fact, I got last night a memorandum on this exact subject. I have been fussing about about this particular item for about eight months, as it comes into a question of our accounting system. I have been working with first one committee and then with another committee in trying to get this matter simplified, and also trying to get another item, which is called indeterminate expenses, simplified. I believe we are probably within about a week of getting a decision on it. I have a memorandum on it now that tells just how it will be worked, but I will not attempt to go into it with you here because I do not fully understand it myself yet, and if I did start I would want to have with me at least two or three of the committee who have been working on the cost accounting and the appropriation accounting in order to explain it to you. If you want them we can get them.

Mr. OLIVER. Have you been treating it rather as a reserve fund on which you could draw or has it been allocated before any need has been shown for it?

Colonel ROOSEVELT. It has been allocated first of all—it really is in one way or another—what was not taken care of here was taken care of somewhere else, so you could not call it a reserve fund.

Mr. OLIVER. With that explanation, it occurs to me that it would be improper to make an appropriation without some kind of a limitation; in other words, without showing to the committee that you may expend funds in addition to what we have granted for specific purposes.

Colonel ROOSEVELT. As far as that goes, I will give you a clear statement about where it will go to-morrow morning.

Mr. OLIVER. Why not have asked for it under those heads if you do not know where it will go?

Colonel ROOSEVELT. I should have said approximately. When we came in we found this established custom of carrying this appropriation. Now, you can make a very good case for having everything carried in this appropriation, but if you carried everything in this appropriation the appropriation would be enormously increased as far as our accounting methods go or as far as the accounting methods go which were in vogue when we took things over.

Mr. KELLEY. How can you tell anything about where anything goes?

Colonel ROOSEVELT. I will be able when I get this new arrangement through.

Mr. KELLEY. If one article is made in which there is a charge for painting a building appearing in the cost and another article made in which the building is painted out of another fund and it does not appear in the cost, your cost business is just a fake.

Colonel ROOSEVELT. No; but it is very difficult because our cost business all the way through is compounded of items from various appropriations; that is what makes our cost accounting so exceedingly difficult in the Navy. For example, you would think that the appropriation or charges for a particular article would come from one appropriation, but they do not; the shop cost has to be figured in percentages of other appropriations have to be figured in, and the result has been that it has been very difficult for us to find out just what any individual item costs until long afterwards.

Mr. KELLEY. You could not unless you always considered the same elements of cost. In some cases, where you have money in this fund, an element does not appear at all in the cost, and on another article, where you do not have money in this fund, that element does appear.

Colonel ROOSEVELT. Now you come to another item of ours which we have used to help this situation and which has been a perfect labyrinth to me, one that is entitled indeterminate overhead; I have been lost completely three or four times when I have tried to dissect indeterminate overhead, and that is what this last board, which is bringing in this report, is working on, trying to eliminate the indeterminate overhead.

Mr. KELLEY. Is there any way by which we can take this appropriation, in connection with the Bureau of Construction and Repair, the Bureau of Engineering, the Bureau of Ordnance, and the Bureau of Supplies and Accounts, and get at anything like what this ought to be?

Colonel ROOSEVELT. Yes, I think so, and I can get that for you to-morrow morning.

Mr. KELLEY. I do not believe you can get it by to-morrow morning.

Colonel ROOSEVELT. Well, I will try.

Mr. KELLEY. If you could get it a year from now you would be doing pretty well.

Admiral GREGORY. I have it right here.

Mr. KELLEY. What have you there?

Admiral GREGORY. I will get Mr. Smith to explain that.

Mr. SMITH. We have here a statement from the Bureau of Supplies and Accounts giving these indeterminate expenses for 1921.

Colonel ROOSEVELT. That is what I was talking about, the indeterminate overhead.

Mr. SMITH. For 1921 it amounted to something over \$10,000,000.

Mr. KELLEY. I do not think it will pay us to go into this, and I not believe it will be profitable.

Admiral GREGORY. I will insert a statement.

In considering the subject it is necessary to keep clearly in mind the distinct difference between "cost" and "appropriation charges." The "cost" of a job includes every element of expense without regard to the appropriations which are involved. For instance, a job of roof replacement under a specific appropriation would require the use of the time of an officer in charge of the job, whose pay is chargeable to "Pay the Navy"; a draftsman to make the plans, whose pay is chargeable to "Maintenance, yards and docks"; heat and light, chargeable to "Indeterminate," and provided to various appropriations; material and labor applied directly to the job, chargeable to the specific appropriation, etc., and all of these charges would be taken together to make up the "cost" of the job. The "appropriation charge," however, is only a portion of the "cost" which is finally charged against the appropriation being considered. If every element of expense on a particular job was a direct charge to a single appropriation, then the "cost" would be the same as the "appropriation charge"; but it is not possible to divide up the overhead expense so as to distribute charges direct to appropriations, as this would require charging an officer's pay, for instance, for a single day to many appropriations, which is manifestly impossible. Therefore there are several appropriations which are general-purpose appropriations to provide for those elements of expense which enter more or less into every job. Appropriation "Maintenance, Bureau of Yards and Docks," is one of these appropriations. "Pay, miscellaneous," is another. These appropriations are intended to carry expenses according to the language of the act. Appropriation "Maintenance, Bureau of Yards and Docks," does not now do this, because it is insufficient for the purpose.

Appropriation "Maintenance, Yards and Docks," is an essential appropriation. It cannot be eliminated on the theory that all of the charges which it now bears could be prorated to other appropriations. It is only at industrial yards and stations (of which there are 12) that charges are prorated, while at the nonindustrial stations (of which there are 47 to which the bureau makes allotments) charges are made direct appropriations, and there is no basis on which charges could be prorated. The bureau makes allotments to the nonindustrial stations sufficient to bear the charges against appropriation "Maintenance, Yards and Docks," but it can not make allotments to the industrial yards and stations to bear all of the charges which by law should be charged to this appropriation, for the reason that the appropriation is not sufficient for such purpose.

The prorated charges are known as "indeterminate" charges in the accounting system and are not lodged against an appropriation until the end of the month. Direct charges can be controlled by the department in advance of expenditure. The accounting system could, furthermore, be greatly simplified by making all charges direct. The indeterminate charges can not be satisfactorily controlled for the reason that they fluctuate according to the amount of productive labor employed, and such charges have therefore been left to the discretion of local officials. No officer having statutory responsibility under the Secretary for expenditure of funds has any control over these indeterminate expenditures. It is, therefore, desirable that so far as possible all charges be made direct to some appropriation.

The allotments to the industrial yards are in such amounts as the funds available permit and are far short of the necessities. For instance, at Philadelphia, during 1921, the maintenance and repair allotment was \$985,209.66, while the indeterminate charges applicable to "Maintenance, Yards and Docks," were \$1,592,328.09 additional. Such charges are authorized by a provision in the naval act of June 30, 1914.

According to reports from the Bureau of Supplies and Accounts, the total indeterminate charges legally chargeable to appropriation "Maintenance, Yards and Docks" during 1921 was \$11,142,845.97 (exclusive of Olongapo, not yet reported). During January, 1922, an "average" month, such charges amounted to \$905,288, which, according to reports of the Bureau of Supplies and Accounts, was distributed as follows by appropriations:

	Per cent.
Pay, Navy	42
Emergency fund	5
Maintenance and ordnance stores	9
Construction and Repair	22
Engineering	19
Education	1
Yards and Docks	2

At the January rate the expenditures for the fiscal year 1922 would be \$10,863,456, and at the percentages named the charges to the appropriations on account of indeterminate charges would be as follows:

Increase, Navy.....	\$4,562,651.32
Naval emergency fund.....	543,172.96
Ordnance and ordnance stores.....	977,711.04
Construction and repair.....	2,389,960.22
Engineering.....	2,064,036.94
Aviation.....	108,634.56
Yards and Docks.....	217,269.12
Total.....	10,863,456.00

The above figures include all power expense. Under the accounting instructions "power expense" includes not only the direct cost of producing power, i. e., coal or other fuel, lubricating oil, water, waste, pay of engineers, firemen, and other power-plant labor and supplies, but also replacements and repairs to power-plant buildings, distributing systems, machinery, boilers, piping, power plant, tools, etc. These latter items are such as are legally chargeable direct to "Maintenance, Bureau of Yards and Docks," but it is considered proper and desirable that the direct cost of the power furnished to vessels and shops should be charged to the appropriation provided for the repair, maintenance, or operation of such vessels and shops. It is estimated that 60 per cent of the entire power expense should be so charged and that 40 per cent should be borne by "Maintenance, Bureau of Yards and Docks" as covering the items of power expense last above mentioned.

The bureau estimates that the total indeterminate expense for 1923 will be \$10,000,000. During 1921 it was \$11,142,845.97 and the power expense was \$5,425,393.66, or approximately 48 per cent of the total. The power expense during 1923 is therefore estimated at \$4,800,000, and 60 per cent of this, or \$2,880,000, would be charged to the ships and shops appropriations, while 40 per cent, or \$1,920,000, would be charged to "Maintenance, Bureau of Yards and Docks," which appropriation would thus carry all of the difference between the total of \$10,000,000 and the power expense amounting to \$2,880,000, chargeable to the other appropriations. This would place upon this appropriation \$7,120,000, in addition to the present estimate for 1923, \$6,750,000, making a total of \$13,870,000.

The bureau now proposes, in order to have charges made direct to appropriation, and thus give better control over expenditures and simplify accounting, to have the various appropriations rebalanced by providing sufficient funds under appropriation "Maintenance, Yards and Docks," to pay the charges which the wording of the appropriation act contemplates should be charged thereto.

The amount just stated to be appropriated is \$7,120,000 more than the present estimate of \$6,750,000. The appropriations of other bureaus which would benefit by this amount being taken out of "indeterminate expense" and added to "Maintenance, Bureau of Yards and Docks," approximately according to the percentages above stated, would be as follows:

Increase, Navy, (40 per cent).....	\$2,848,000
Construction and repair (25 per cent).....	1,750,000
Engineering (20 per cent).....	1,424,000
Ordnance and ordnance stores (10 per cent).....	712,000
Total.....	6,764,000

No "naval emergency fund" expenditures are probable for 1923, while "Aviation" expenditures will probably be so comparatively small as to be negligible. These two appropriations, which have carried some charges heretofore, are therefore omitted.

The bureau estimated that a substantial saving can be effected by this plan on account of making charges direct, and therefore recommends that the amount to be appropriated under "Maintenance, Bureau of Yards and Docks," be fixed at \$12,500,000, or \$1,014,000 less than the present estimate, \$6,750,000, plus the \$6,764,000 above mentioned.

No legislation is necessary to accomplish this result other than that necessary to provide sufficient funds under "Maintenance, Bureau of Yards and Docks," thus relieving other appropriations from the expense of upkeep of shore structures properly chargeable to the appropriation just mentioned. An increase of \$5,750,000 under "Maintenance, Bureau of Yards and Docks," will render \$6,764,000 available for expenditure direct to fleet repair under other appropriations, a saving of \$1,014,000.

Mr. KELLEY. In the event that a yard is closed down or practically closed down, how will that reduce the expenses of your bureau, so far that yard is concerned?

Admiral GREGORY. We do not expect it will make any substantial change in the charges which would come normally to Yards and Docks; the saving will be entirely on the appropriations to other bureaus.

ESTIMATED EXPENDITURE FOR PHILADELPHIA NAVY YARD.

Mr. KELLEY. Let us analyze that a little. Take the Philadelphia yard, you estimate next year to spend on the Philadelphia yard \$77,650. Do you think it will cost any sum like that to close that yard down and do what is necessary to keep it in status quo?

Admiral GREGORY. That is the navy yard's estimate, but I am afraid it would cost nearly that, sir. Let me explain that to you.

Mr. KELLEY. Let me run into some of these items. Among these items for the Philadelphia yard there is furniture, \$10,000. You could not need to buy any furniture?

Admiral GREGORY. That would probably be almost entirely eliminated.

Mr. KELLEY. You would not operate the dry dock?

Admiral GREGORY. No, but our appropriation is not for the operation of the dry dock. What we expend is for repairs and upkeep.

Mr. KELLEY. You have \$25,000 which could go out?

Admiral GREGORY. It might be that the overhauling of the drydock would cost more than that. That is an item which increases or decreases from year to year.

Mr. KELLEY. If you shut down there would not be much overhauling of anything?

Admiral GREGORY. We would have to make the repairs.

Mr. KELLEY. The expense would, I suppose, be mostly fuel?

Admiral GREGORY. The operation of the power plant for the entire yard is a great deal more than that; that is only the amount charged to "maintenance."

Mr. KELLEY. That would be a big fuel bill if you were not doing dry dock work?

Admiral GREGORY. That also includes the pay of the firemen and all that.

Mr. KELLEY. You certainly would not need as many people.

Admiral GREGORY. No; there would be some reduction.

Mr. KELLEY. The waterfront, would you have to spend as much on that?

Admiral GREGORY. I can not say whether we would need as much on that.

Mr. KELLEY. For special equipment, you would not need to buy any?

Admiral GREGORY. We would not need as much as that.

Mr. KELLEY. Classified employees, \$92,000, that would all disappear?

Admiral GREGORY. That will be reduced.

Mr. KELLEY. And, also, leave pay.

Admiral GREGORY. A large amount would go.

Mr. KELLEY. Holiday pay would also go; so that, after all, we would cut out quite a large amount of money there.

Colonel ROOSEVELT. You have cut out quite a large amount, but I think that probably certain other items would go in. Admiral, you have cut out a lot of appropriations, or the chairman has cut them, but would you not have to increase in certain other items, such as repairs to buildings, cleaning streets, etc?

Mr. KELLEY. There is no need to increase the repairs to buildings.

Admiral GREGORY. The direct charges would increase.

Mr. KELLEY. If you are called upon to keep things in statu quo, and not to put everything in condition, or in such condition as you would have them if you were to operate them, but only in good shape so that they will not deteriorate and so the roofs will not leak, it is not possible that it would cost you more than half as much as it does to keep the plants in running condition.

Admiral GREGORY. Yes, sir; I think it would cost more than that.

Mr. KELLEY. Those items I have named run into large sums, and you have conceded that you could cut them.

Admiral GREGORY. When we have worked it out as to a number of yards that might be closed, I have found that the sum total on the inactive basis is very much the same as the amounts we now allot.

Mr. KELLEY. These estimates are not the amounts you allot, but these are estimates which are based upon what would be required if the system you have in mind were in operation. I think these aggregate some \$10,000,000.

Admiral GREGORY. Those are not expenditures at all, but they are estimates received from the yards of what they thought they would need continuing on the basis of the present practice.

Mr. KELLEY. Now, what you are saying is that the amount you were paying during last year probably could not be greatly reduced, even if they were closed down, because a great many of the charges you would have to pay are now being paid by somebody else.

Admiral GREGORY. Yes, sir.

Colonel ROOSEVELT. Of course the total would come down enormously.

Mr. BYRNES. A part of the maintenance of buildings is now being borne by other bureaus?

Admiral GREGORY. Yes, sir.

Mr. BYRNES. And if they were closed down, there could be a reduction in the appropriations for those other bureaus?

Admiral GREGORY. Yes, sir.

Colonel ROOSEVELT. The sum total would be greatly reduced.

Mr. OLIVER. Can you indicate to us where these cuts should be made?

Admiral GREGORY. That is precisely what I understood you wanted.

Mr. KELLEY. That will be in the Bureau of Ordnance, Bureau of Construction and Repair, and Bureau of Engineering.

Admiral GREGORY. We have been working over the reports that have been submitted to us by the Bureau of Supplies and Accounts covering the expenditures that have been made.

Mr. KELLEY. We will have to make this sum an arbitrary amount and try to arrive at a very close estimate with the other bureaus.

Colonel ROOSEVELT. I do not quite share Admiral Gregory's optimism about having that so nearly ready, but it will be ready. I

I believe, in a very short time. Then, if we could get our accounting system in, or if Congress would give us certain rights of transfer, even though they handled it this year under the old system, next year we would be in shape, after having operated for one year under that plan, to come in with a correct allocation of the funds. My thought there was this, that we are going to get this system of accounting very soon, and if, instead of attempting to handle the entire appropriation under the new system of accounting this year, it were handled under the old system, with certain privileges given to the Secretary—and I am making this suggestion right off the reel, without having conferred with the Secretary about it—as I say, with certain privileges given to the Secretary to reallocate the funds in accordance with this new system of accounting, then when the next appropriation came up we would have been operating under it, and all of the appropriations could be handled in the new way when it is worked out; whereas, I am inclined to think that we have too little time this year to go into the enormous amount of detail that we might have if the new system were perfected.

Mr. KELLEY. We could put on limitations that would force an accounting along certain lines, of course, but in doing so we would save, I fear, no proper gauge in fixing the amounts.

Colonel ROOSEVELT. No, sir; and that is why I suggest that you have the give and take in there.

Admiral GREGORY. The give and take is already provided for by that clause in the appropriation act of June 30, 1914, which permitted all of this elastic charging under each indirect expense. I think that in one sitting of the accounting board, although there might be some disagreements, they could come to an approximate balancing of the appropriations handled by the several bureaus, and then you could let that be the basis upon which the appropriations would be made. That could be done, and they would not have to change a single item of the bill, or a single word in the bill, but the difference would be in the amounts. You could try that one year, and then next year you would know whether you had struck the right balance, or not.

Colonel ROOSEVELT. I wanted to avoid the trouble of the coincident bickering which would be inevitable in the distribution of the appropriations in that way. Instead of that, let us obtain the same result by putting a system in vogue by which it would be balanced during the year. Then, at the end of the year we would have attained your objective and would not have had the coincident difficulties which I can see right away.

Admiral GREGORY. Those are the two ways. The method you suggest, however, is tantamount to making one lump appropriation for the entire Navy, made up of the individual sums for each of the different bureaus.

Mr. BYRNES. That is almost done now.

REPAIR TO PRIVATELY-OWNED RAILWAY CARS OF DAMAGES SUSTAINED WHILE IN CUSTODY OF NAVAL ESTABLISHMENT.

Mr. KELLEY. On page 104 you have some new language, as follows: And for repair to privately-owned railway cars of damages sustained

while in the custody of the Naval Establishment at navy yards and naval stations."

Admiral GREGORY. That is for the purpose of enabling a rapid or prompt settlement with the various railroads when the cars are damaged in the navy yards, perhaps, by careless handling. At the present time we are not authorized by law to make the repairs, and it requires a great deal of red tape in order to have the railroads secure the relief that they need. When a car is damaged it can not be taken back over the railroad again in its damaged condition, and because of not having that authority we are prevented from playing fair with the railroad companies.

Mr. KELLEY. Would you put any limitation on this?

Admiral GREGORY. No, sir; there is no need of putting on a limit. It is bound to be a very small amount in dollars and cents.

Mr. KELLEY. The Secretary already has authority to settle claims not in excess of \$500.

Admiral GREGORY. Yes, sir; and that is why we have to refer the matter to the department. That takes time.

Mr. KELLEY. I would not want to put that authority in the hands of the department. I do not think Congress would be willing to do that.

Admiral GREGORY. If a car is damaged at a yard, and it is a minor damage, it is desirable to have that repair made promptly so that the car can be taken out.

Mr. KELLEY. You want authority to settle those claims and to take the money out of this appropriation without reporting it to Congress at all?

Admiral GREGORY. Yes, sir. It is not a claim.

Mr. KELLEY. It is the same thing. It is a claim on account of damage to cars.

Commander ROUZER. The idea is for the Government to do the work itself.

Mr. KELLEY. That is the same thing.

Commander ROUZER. We can not do it now.

Admiral GREGORY. We have no authority now to make repairs on any property that does not belong to us, and this is to enable us to do that.

Mr. KELLEY. I do not know that you should have authority to do that.

Admiral ROUZER. If we do the damage, or if it is damaged while in our possession —

Mr. KELLEY (interposing). You have authority to pay the damages, and is not that the better way?

Admiral GREGORY. But how will the railroad company get its car out? The law does not allow a car to go out over the main line in a damaged condition. If we had authority to make the repairs, it could be made promptly, and the car could go out.

Mr. KELLEY. You could make an arrangement with the railroad company by which you could make the repairs.

Admiral GREGORY. It has been complicated in the past, and has caused a great deal of annoyance. That is why we are proposing to do this.

Mr. OLIVER. Do you have to pay demurrage on the cars pending the making of the repairs?

Admiral GREGORY. Yes, sir; it will save money to have that demurrage vision go in.

CLERICAL EXPENDITURE, DRAFTING, MESSENGER, AND OTHER CLASSIFIED WORK.

Mr. KELLEY. It is an item of legislation that we would not have jurisdiction over.

You have reduced the classified expenses from \$1,300,000 to \$1,150,000?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. You could make a bigger cut than that, could you not?

Admiral GREGORY. Not without tying up our records in bad shape. We have made very substantial cuts from 1917 to date, and the cut to \$1,150,000 is going to cause a very decided pinch.

Mr. KELLEY. We will make quite a reduction in the establishment, I presume. In 1916 you had 325 employees, and the expense was \$346,759.94. Now you want about three times as much.

Admiral GREGORY. No, sir; not three times as much.

Mr. SMITH. I have not the number of our present force that is actively employed, but the amount is \$1,126,848.

Mr. KELLEY. How many people are employed?

Mr. SMITH. There are 539 employees.

Mr. KELLEY. As against 325 in 1916. Who fixes the schedule of pay for draftsmen and other employees in the bureau?

Admiral GREGORY. That has been fixed by a board of officers in the Bureau under a plan whereby they establish grades of pay for the different classes of work. Then the yards concerned place in that schedule the individuals according to their abilities and capabilities, and the approval of their schedule is what fixes the pay of the individuals. I know personally that many of those individuals are being paid less than their abilities demand, and there is a constant howl for better recognition. We know that they are ground down pretty well.

PAY OF DRAFTSMEN, ENGINEERS, ETC.

Mr. KELLEY. Most of your draftsmen and engineers are getting about \$3,000 apiece?

Admiral GREGORY. No, sir.

Mr. KELLEY. For the architectural aid the total per annum is \$3,380.40; you have an assistant designing engineer at \$3,630.80; a civil engineer aid at \$3,756; another one at \$3,630; two at \$7,011 for the two; one at \$3,255.20; four at \$12,000, or \$3,000 each; one at \$3,286; one at \$3,757; one at \$3,130; three at a total salary of \$13,897, and so on down.

Admiral GREGORY. Those rates of pay are in accordance with the pay of outside establishments.

Mr. KELLEY. In 1916 there were two positions that paid a little over \$2,000. Those positions paid \$2,300, \$2,200, and the next was \$2,000. All the others were \$2,000 or less. This pay has advanced about what percentage, would you say, since 1916?

Admiral GREGORY. It is well known that the pay of professional people like that has advanced over double since 1916.

Mr. KELLEY. Are these about the rates that are paid by the Newport News Shipbuilding Co. or the Fore River Shipbuilding Co.?

Admiral GREGORY. I think so.

Mr. KELLEY. The pay is fixed by a board of naval officers?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. And it is approved by the Secretary?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. Have they been advanced lately?

Admiral GREGORY. They have been cut lately. Actual cuts have taken place within the last month or so. There was a cut about a month ago, and another one last fall.

Mr. KELLEY. Do you furnish draftsmen for the Bureau of Ordnance?

Admiral GREGORY. When we are designing any structures for those bureaus the draftsmen are paid for out of our appropriation.

Mr. KELLEY. If we close down any considerable number of yards, or partially close a number of navy yards, as a result of the cancellation of ships, would not that reduce your force?

Admiral GREGORY. That will permit us to catch up with work that we now have on hand, and which, on account of the amount of crowding in former years, we have not caught up on. We have not caught up with all of the work that has been appropriated for even up to date.

Mr. KELLEY. What work do you especially refer to?

Admiral GREGORY. We have quite a good deal of work in the bureau now under amounts carried in last year's bill.

Mr. KELLEY. Like the hospital at San Diego?

Admiral GREGORY. We are working on that now. That work is not all completed, and a great deal of the work in connection with the San Diego Hospital is still going on in our drafting room.

Mr. KELLEY. I can see how an outside field force might be required.

Admiral GREGORY. Yes, sir; and an office force as well. We have a large amount of work coming to a head which we will not be able to even begin for a couple of years, but we will arrange to take it up as fast as we can do so.

Mr. KELLEY. So you think this amount can not be reduced below \$1,150,000?

Admiral GREGORY. Not without delaying the work very seriously.

AUTOMOBILES.

Mr. KELLEY. I call your attention to this new provision:

Provided further, That hereafter the Secretary of the Navy may purchase under appropriations giving the requisite authority passenger-carrying automobiles necessary for replacements, after proper surveys and condemnations, of not to exceed 3 per centum per annum of the authorized passenger-carrying automobiles in service at a cost of not to exceed \$2,000 for automobiles having a capacity of seven passengers or \$500 for automobiles having a capacity of five passengers.

You have lots of cars, have you not?

Admiral GREGORY. We had a lot of cars at the end of the war, but we have had no new ones since then, and those cars are being very rapidly worn out. We are getting to the point where certain cars, when they are sold for junk, should be renewed. I think Commander Warren wants to make a statement in regard to that provision.

Commander WARREN. We are not getting any mileage out of our cars, and they are about to fall to pieces. Some of them are five years old, and we thought that it would be the cheapest plan to begin next year to replace those cars.

Mr. KELLEY. How many do you want next year?

Commander WARREN. We want one-fifth of what we can run on 75,000. We are running now 228 cars, including Marine Corps cars abroad. On the 1st of July we had 504, and we do not know how to beat this new law you made.

Mr. KELLEY. You want to buy 40 cars?

Commander WARREN. Yes, sir; one-fifth of what we have.

Mr. KELLEY. What kind of cars do you want?

Commander WARREN. We want to buy Packards, but we figure that we will probably have to buy something of the Buick type. We have to have a car if we are to have service, and we knew that about \$2,000 would be all that we could get.

Mr. KELLEY. Do you handle all of the cars for the Navy?

Commander WARREN. That comes under the Bureau of Yards and Docks, but it was such a mean job that they gave it to the Assistant Secretary of the Navy, and I have been handling it under the personal supervision of the Assistant Secretary.

Mr. KELLEY. Do you tell him what to do, or does he tell you what to do?

Commander WARREN. He tells me what to do.

Colonel ROOSEVELT. I take his advice in a great many things on that. We have had stony hearts all last year. You can imagine that we have had stony hearts when I say that we have reduced the number in the past six months from 504 to 228.

Mr. KELLEY. How many automobiles did the Navy have before the war?

Commander WARREN. We owned 659.

Mr. KELLEY. Before the war?

Commander WARREN. That was in March. I do not know how many we had before or during the war. That is as far as my knowledge goes.

Mr. SMITH. The first ones were bought early in the war.

Mr. KELLEY. You did not have any before that at all?

Mr. SMITH. No, sir.

Mr. KELLEY. How did they get around?

Commander WARREN. Every commandant had two horses and a carriage.

Colonel ROOSEVELT. I remember that my father, when he was Assistant Secretary of the Navy, had horses and a wagon. I remember that perfectly, and I remember he had an old driver named Marshall.

Mr. BYRNES. Every commandant has a car.

Commander WARREN. Yes, sir.

Mr. KELLEY. You have how many cars?

Commander WARREN. Two hundred and twenty-eight, including every car here and abroad.

Mr. KELLEY. That will take care of all the commandants?

Commander WARREN. Yes, sir.

Mr. KELLEY. How many cars have you in storage?

Commander WARREN. We have in storage about 123.

Mr. KELLEY. Are they entirely useless?

Commander WARREN. We have reports on the condition of each one of them, and we are selling them. We are cutting them down every day by selling them.

Colonel ROOSEVELT. We sold more than 100 during last year.

Mr. KELLEY. I guess we will have to let the officers buy their own cars from now on.

Commander WARREN. Can you imagine running an industrial plant the size of the Navy without some kind of cars?

Mr. KELLEY. They have 229.

Commander WARREN. Yes, sir; but it costs a great deal of money to run those cars. We have got to replace them in some way.

Admiral GREGORY. There is a matter of economy involved, because we are not asking for an increase in the amount of money for upkeep. This is for the purpose of being able to make an economical disposition of a car when it gets to the point where the cost per mile is too great to operate it, and when it should be scrapped, and buy a new car. We figure that we can reach a certain point where the cost of upkeep is more than the cost of getting a new car.

Mr. KELLEY. A few years ago Congress would not give the Speaker of the House of Representatives a car, and I do not know whether he has one now. You speak of \$2,000 cars, but you would not want anything better than a Ford to run around the navy yard. A good bicycle would be better yet.

Admiral GREGORY. It is proposed to replace the old high-grade cars with seven-passenger cars.

Mr. KELLEY. Why would you want a seven-passenger car around a navy yard?

Admiral GREGORY. The commandant of the navy yard frequently needs such a conveyance for parties of official visitors at the yard, including foreign representatives, etc., who are paying official calls. Very frequently he needs a big car, and he is not the only one that needs a car.

Mr. BYRNES. How many yards have we got, or how many commandants do we have?

Admiral GREGORY. We have nine navy yards and a great many naval stations.

Mr. BYRNES. You have 28 commandants, leaving 200 cars for people who have no official visitors to take care of. The question is why is it necessary to have so many cars, and we will have to answer that question on the floor of the House.

Admiral GREGORY. I can give you an experience that I had only last summer while I was stationed as public works officer at the Boston Navy Yard and aid for public works in the first naval district. In that capacity I had charge of the work from Bar Harbor on the north to Newport on the south. I had under construction during that period probably seven or eight different radio compass stations, and there was construction work going on at every one of those places. After July 1, last, when the restriction that was put on went into effect, I found that I was compelled to ask a contractor to furnish me with an automobile to go to a certain place where his contract was under way. That is not a proper position to put an officer of the Government in--that is, to have to ask a contractor to furnish his transportation. I had to do it because there was no car available for the public works officer of the first naval district. There is a great deal of travel duty in inspecting work and inspecting stations. For instance, the radio matériel officer who had charge of the open

on of all those stations had to visit them. He had to visit the men to see that they were on the job, that the work was being done properly, that proper reports were being made, and that the plants were being kept up as they should be. He had the same difficulty to go rough with, and if he did not have a car of his own, he would have to beg, borrow, or steal in order to get a car. I do not think you gentlemen realize, where you have so many stations that are dependent upon a single station as headquarters, what a great deal of official travel is necessary.

Mr. KELLEY. There will not be so many next year. That work you are talking about was during the war.

Admiral GREGORY. There was no war last year and I had that appropriation with no war going on.

Mr. KELLEY. We just ended the war a few weeks ago officially, you know, and there is always a lot of hang-over stuff that follows a war. But those places will all be shut down next year.

Admiral GREGORY. The radio compass stations are, so far as I can see, permanent institutions. There are places where we might be able to cut down some, but I think very few.

Mr. KELLEY. \$767 is what it cost you to keep up one of these cars during the year. They must be pretty good cars.

Admiral GREGORY. When you take into consideration the cost of a chauffeur and all—

Mr. KELLEY (interposing). Do all of the mechanics have chauffeurs? You do not have many chauffeurs, do you?

Admiral GREGORY. You have to pay for chauffeurs when they are civilians.

Mr. KELLEY. Do you allow these people to have chauffeurs as well as cars?

Colonel ROOSEVELT. Some of them have and some have not.

Commander WARREN. The commandants of all big stations have chauffeurs.

Admiral GREGORY. As a matter of fact, I would rather pay a chauffeur than trust a Government car to the average naval officer driving it. We find it costs much less.

Colonel ROOSEVELT. Perhaps it might aid you a little bit if Commander Warren gave you the distribution.

Mr. KELLEY. You might put that in the record, as it will show who has the cars. Is it a long table?

Commander WARREN. No, sir; not particularly. I will insert it.

Statement of passenger cars (exclusive of motor cycles) in use or reserve, and allowances for maintenance, operation, and repair.

[Compiled from latest reports to the Bureau of Yards and Docks, March 20, 1922.]

Place and allowance.	Car and No.	Assignment.
Boston, \$700.....	Cadillac, 2030.....	General use.
Baltimore, \$3,300.....	Packard, 4.....	Superintendent.
	Ford, 9.....	Buildings and grounds.
	Ford, 5.....	Medical officer on out-patient duty.
Atlantic Fleet, \$600.....	Cadillac, 1681.....	Commander in chief, Atlantic Fleet.
San Francisco, \$1,400.....	Dodge Sedan, 1030.....	Commandant fifteenth district.
San Francisco, \$290.....	None.....	Allowance is for a motor cycle for general use.
San Francisco, \$3,390.....	Oldsmobile, 35.....	Public works officer, first district.
	Cadillac, 2914.....	Commandant's office.

Statement of passenger cars (exclusive of motor cycles) in use or reserve, and allowance maintenance, operation, and repair—Continued.

Place and allowance.	Car and No.	Assignment.
Boston, \$3,391.....	Nash, 1732.....	Chief of staff, first district.
	Ford, 1701.....	Commandant's office.
	Dodge, 953.....	Supply and disbursing department.
	Packard, 1087.....	In reserve.
Cape May, \$900.....	Ford, 1s24.....	Public works department.
Cavite, \$1,200.....	Packard, 2s22.....	Commandant.
Charleston, \$3,495.....	Cadillac, ss.....	Do.
	Ford, 1s86.....	General use.
Coco Solo, air, \$180.....	None.....	Allowance is for a motor cycle for use.
Coco Solo, base, \$780.....	Ford, 1s89.....	Commanding officer.
	G. M. C. (bus).....	General use.
	Ford (bus), 2125.....	In reserve.
Europe, \$8,000.....	Cadillac, 2s78.....	Force commander, fleet ship.
	Cadillac, 2s80.....	London.
	Cadillac, 2s78.....	Paris.
	Cadillac, 2s89.....	Constantinople.
	Cadillac, 1901.....	Berlin.
Fort Lyon, \$580.79.....		Transferred to Veterans' Bureau.
Great Lakes, \$1,940.48.....	Packard, 135.....	Commandant.
	Packard, 134.....	In reserve.
	National, 138.....	Executive officer.
Guam, \$1,380.....	Peerless, 300.....	Governor.
Guantanamo, \$900.....	Ford, 305.....	General use.
	Ford, 1105.....	In reserve.
Hampton Roads, \$4,695.....	Cadillac, 2475.....	Commandant.
	Packard, 319.....	Commanding officer, training station.
	Packard, 1133.....	Commanding officer, air station.
	Peerless, 1162.....	Officer in charge, supply station.
	Packard, 686.....	Public works officer.
	Cadillac, 1981.....	Assistant commandant.
	Ford, 2238.....	Training station.
	Ford, 113-X.....	Supply station.
	Ford, 2241.....	In reserve.
Hingham, \$225.....	Ford.....	Inspector in charge.
Indianhead \$2,000.....	Packard, 381.....	Do.
	Hudson, 1780.....	Commanding officer, Indianhead.
	Hupmobile, 1783 (2-passenger).....	In reserve.
	White 7, 1785.....	Do.
	Oldsmobile, 382.....	Commanding officer, Indianhead.
Keyport, \$600.....	Ford, 2869.....	General use.
Key West, \$400.....	Overland, 1944.....	Commandant.
Lake Denmark, \$600.....	Ford, 110.....	Inspector in charge.
Lakehurst, \$3,360.....	Pierce-Arrow bus, 1630.....	Civilian employees and liberty parties.
	Ford, 889.....	Mail orderly and routine.
	Havnes, 1730.....	In reserve.
	Packard, 1997.....	Do.
	Cadillac, 2213.....	Manager.
Mare Island, \$3,481.....	Winton, 417.....	Commandant.
	Ford, 419.....	In reserve.
New London, \$1,200.....	Marmon, 1498.....	Commanding officer.
New Orleans, \$2,700.....	Cadillac, 532.....	Commandant.
Newport, War College, \$2,700.....	Cadillac (limousine), 2367.....	President.
Newport Naval Station, \$250.....	Ford, 1748.....	Medical officer.
New York yard, \$3,300.....	Packard, 572.....	Commandant.
	Cadillac, 1298.....	In reserve.
New York district, \$3,550.....	Packard, 594.....	Commandant.
	Packard, 571.....	In reserve.
	Winton (limousine), 1301.....	General use.
Norfolk, \$3,330.....	Cadillac, 2615.....	Commandant.
	Peerless, 685.....	Manager.
	Ford, 693.....	Captain of yard.
	Ford, 682.....	Supply officer.
	Ford, 687.....	Medical officer.
Paris, \$2,700.....	Cadillac, 2879.....	Graves registration.
	Cadillac, 2875.....	Do.
Pearl Harbor, \$2,075.67.....	Cadillac, 612.....	Commandant.
	Owen-Magnetic, 772.....	In reserve.
	Ford, 773.....	Public works officer.
	Ford, 2032.....	Medical officer.
	Ford, 1140.....	In reserve.
	Ford, 1943.....	General use.
	Wintner bus, 1220.....	In reserve.
Pensacola, \$2,200.....	Peerless, 818.....	Commandant.
	Owen-Magnetic, 395.....	Captain of yard.
	Ford, 819.....	Public works.
	Ford, 828.....	General use.

of passenger cars (exclusive of motor cycles) in use or reserve, and allowances for maintenance, operation, and repair—Continued.

and allowance.	Car and No.	Assignment.
1 yard, \$4,560.....	Packard, 1351.....	Commandant.
	Packard, 482.....	In reserve.
	Cadillac, 2017.....	Commandant's office.
	Cadillac, 2338.....	In reserve.
	Cadillac, 1683.....	Aircraft factory.
1, Home, \$840.....	Cadillac, 2200.....	Governor.
, \$2,700.....	Peerless, 913.....	Commandant.
1, \$3,300.....	Cadillac, 2474.....	In reserve.
	Winton, 926.....	Commandant.
	Ford, 1001.....	In reserve.
ervice, \$11,700.....	Ford, 2773.....	Baltimore, Md.
	Ford, 1078.....	Washington, D. C.
	Ford, 1573.....	Brooklyn, N. Y.
	Oldsmobile, 2776.....	Buffalo, N. Y.
	Studebaker bus, 2784.....	Chicago, Ill.
	Ford, 1599.....	Do.
	Ford, 2240.....	Cincinnati, Ohio.
	Ford, 1356.....	Dallas, Tex.
	National, 117.....	Detroit, Mich.
	Ford, 2700.....	Indianapolis, Ind.
	Studebaker, 1205.....	Inspector, New England.
	Cadillac, 2499.....	Inspector, eastern.
	Cadillac, 2148.....	Inspector, southeastern.
	Cadillac, 1958.....	Inspector, southern.
	Oldsmobile, 2697.....	Inspector, central.
	Cadillac, 2689.....	Inspector, west central.
	Cadillac, 2821.....	Inspector, western.
	Ford bus, 2747.....	Little Rock, Ark.
	Studebaker bus, 2726.....	Los Angeles, Calif.
	Ford, 1594.....	Nashville, Tenn.
	Ford, 2100.....	New Haven, Conn.
	Ford, 1297.....	New York, N. Y.
	Ford, 1350.....	Philadelphia, Pa.
	Ford, 2685.....	Portland, Oreg.
	Ford, 1108.....	Recruiting bureau.
	Oldsmobile, 2366.....	Seattle, Wash.
	Ford, 1975.....	St. Louis, Mo.
\$600.....		Transferred to Philadelphia, Dec. 20, 1921.
, \$2,700.....	Cadillac, 2873.....	Commandant.
	Ford, 2862.....	Hospital.
ir Station, \$888.....	Packard, 2810.....	In reserve.
Eleventh district,	Ford, 1377.....	General use.
	Ford, 970.....	General service.
	Ford, 1153.....	Do.
ase, \$2,700.....	Packard, 965.....	Commandant.
co district, \$2,700.....	Cadillac, 2255.....	Do.
\$1,200.....	Cadillac, 2480.....	Commander in chief, Pacific Fleet.
ngo, \$2,700.....	Cadillac, 1679.....	Military governor.
	Ford, 965.....	Supply officer.
dyn, \$600.....	Cadillac, 2578.....	Officer in charge.
exton, \$2,700.....	Packard, 1008.....	Inspector in charge.
, yard, \$3,300.....	Packard, 1025.....	Commandant.
, dispensary, \$4,200.....	Dodge (2), 2497.....	General use.
	Dodge (2), 2664.....	Do.
	Willys (7), 2495.....	In reserve.
, department,	Packard (limousine), 1947.....	Secretary.
	Winton (limousine), 1300.....	Assistant Secretary.
	Cadillac, 2874.....	Chief of Operations.
	Packard, 1068.....	Pooled for special use and replacement.
	Packard, 1945.....	Do.
	Ford, 1026.....	General use.
\$1,200.....	Reo, 1929.....	Inspector in charge.
	Ford, 2033.....	Public works and supply officers.
	White bus (8), 2371.....	In reserve.
	White bus (12), 2370.....	Do.
	Ford, 1066.....	Do.

Passenger-carrying vehicles owned by the Marine Corps in the United States.

[Allowance, \$24,900. Column "Light" includes Fords, Dodges, and Nash 5-passenger cars; all other included under column "Heavy."]

Station.	Automobiles in use.		Automobiles in storage.	
	Heavy.	Light.	Heavy.	Light.
Hampton Roads depot.....		1		
Mare Island, Calif.....	1			
New London, Conn.....				
New Orleans, La.....				
New York, N. Y.....	1	1		
Norfolk, Va.....		1		
Parris Island, S. C.....	1	3	1	1
Philadelphia barracks.....	1			
Philadelphia, Pa. (depot).....			5	
Philadelphia, Pa., depot (use).....	1	1		
Quantico, Va.:.....				
Barracks.....	2	2	1	1
First Regiment.....				
Tenth Regiment.....				1
San Diego, Calif., barracks.....		1		
San Diego, Calif., A. B. F.....	1			
San Francisco, Calif. (depot).....	1		1	
Washington, D. C. (headquarters).....	2	1	2	
Yorktown, Va.....		1		
Total.....	11	12	10	3

Grand total, 197. Total of allowances, \$154,847.94.

Mr. KELLEY. These are pretty hard times and I doubt whether Congress would be willing to give you 40 new automobiles, but we will think it over. I think this is legislation, anyway.

Admiral GREGORY. No; it is the renewal of old, worn-out cars.

Mr. KELLEY. Is there anything else about the automobiles?

Admiral GREGORY. There is some other language at the bottom of the page.

Mr. KELLEY. "And exclusive of vehicles being used by medical officers in attending patients." Why do you want those excluded?

Commander WARREN. A case in point came up at New London, Conn. The medical officer there has to attend all the officers, the enlisted men and their families; they are scattered and he has nothing with which to get around, and out of the appropriation we have we can not give him an automobile. He borrows the commandant's car and uses private cars.

Mr. KELLEY. I have an idea you will be able to find cars enough for the doctors wherever it is necessary out of all this number.

Commander WARREN. That is not a whole lot of money.

Mr. KELLEY. What was your repair bill for automobiles this last year?

Commander WARREN. We allot the money for our repair bills. This is one allowance which we said had to be kept within and we have a little money left, with which we are going to try to put some more cars in shape. We gave them \$1,200 for a big car; that is, for the upkeep of it, and we gave them \$600 for the upkeep of a little car, and we told them when they exceeded that amount or before they exceeded it to put the car out of commission and walk, so they are not exceeding it.

Mr. KELLEY. If this language were put in this bill, how many extra cars would it make?

Commander WARREN. Personally, I do not think it is good language.

Mr. SMITH. It will make no extra cars, because it is merely for replacement; one will go out and one will come in.

Colonel ROOSEVELT. That is not meant to increase the number of cars a single one, not one; it is simply meant to act as a replacement or a car which has worn out. If the committee desires to fix a definite limit on the number of cars that may be replaced it is requested that the number be fixed at not less than 20.

Mr. KELLEY. It provides:

That expenditures from appropriations contained in this act for the maintenance, operation, and repair of motor-propelled, passenger-carrying vehicles, including the compensation of operators, shall not exceed \$175,000, exclusive of such vehicles owned and operated by the Marine Corps in connection with expeditionary duty without the continental limits of the United States, and exclusive of vehicles being used by medical officers in attending patients.

That would put those two outside of this limitation.

Colonel ROOSEVELT. I think the matter of the Marine Corps came up last time.

Mr. KELLEY. But the effect of this would be to allow as many cars for doctors as you saw fit, and I asked you how many you thought would be.

Commander WARREN. That is something no one could estimate, but it would not increase the present number.

Mr. BYRNES. You do not know how many they now have?

Commander WARREN. Yes; we know how many they now have, but in some cases they do not have far to go and in some cases they do. It is entirely in the discretion of the Assistant Secretary; they explain the case to him and he says yes or no.

Mr. KELLEY. Who furnishes the gasoline for the cars?

Commander WARREN. It does not make much difference who furnishes it, but usually Yards and Docks. However, it is charged against the allowance we give them.

Mr. KELLEY. Against the \$175,000?

Commander WARREN. Yes, sir.

Mr. KELLEY. There is a small item for contingent expenses. You had \$150,000 for 1922, and you are asking the same amount for 1923.

Admiral GREGORY. Yes, sir. From the very meaning of the words covers things we can not foresee, and if we do not need the money we do not expend it. However, in case of emergency we have it and can use it.

THURSDAY, MARCH 23, 1922.

STATEMENT OF REAR ADMIRAL L. E. GREGORY, CHIEF.

SALARIES.

Mr. KELLEY. You have this year for your permanent roll \$23,690. How much are you asking for next year?

Admiral GREGORY. It is being increased by \$1,000 to the sum of 24,690, that increase being for the chief clerk.

Mr. KELLEY. If that is not allowed, the statutory list will stand the same as last year?

Admiral GREGORY. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For the temporary roll, you have this year \$50,000 and you are asking how much?

Admiral GREGORY. This year for the temporary roll we have a limitation of \$50,000, but our roll actually amounts to \$46,580. We are proposing a reduction to \$30,660, which is a very large percentage.

Mr. KELLEY. How many employees have you altogether in the bureau?

Admiral GREGORY. On that force we have at the present time 3—that is, on the additional clerical force.

Mr. KELLEY. And they are added to your statutory force?

Admiral GREGORY. Yes, sir; of 20, making 58 in the clerical force.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

Mr. KELLEY. Now, the drafting force. You had a limitation of \$200,000 last year.

Admiral GREGORY. And we have proposed a reduction to \$160,000 for the next fiscal year.

Mr. KELLEY. I was hoping you might cut that down a little more this year, Admiral.

Admiral GREGORY. We have made a cut in that, Mr. Chairman, which is very large, and I have grave misgivings as to whether we can do that without crippling our work. We are doing a great deal of work for other bureaus. For example, for the Bureau of Engineering we are doing a good deal of work on radio stations; for the Bureau of Aeronautics we are opening up a great big field of work which was not done before the war; for the Marine Corps we have all of the barracks, and for the Bureau of Medicine and Surgery we have all of the hospital work.

Mr. KELLEY. You do not build the radio towers?

Admiral GREGORY. Yes, sir.

Mr. KELLEY. If we should adopt the policy of just keeping those in good shape but not spreading out just at present, would that make some difference?

Admiral GREGORY. We are counting on that, but there is another thing: Before the war the value of public works and plant was approximately \$212,000,000, and since the war they have been increased so that the approximate value at the present time is \$546,000,000, and the maintenance work all falls upon the technical and clerical force of the Bureau of Yards and Docks.

Mr. KELLEY. If there is quite a cessation of work on the Atlantic in the yards, your draftsmen will not have so much to do, and you would not need so many. However, you think you have made all the cut you can stand?

Admiral GREGORY. I know we have, and we have taken all of that into account. We also have to consider this: The work that is now under way; and until that is finished we must have a drafting force to check up the contractors' drawings, keep track of records, and things of that kind. So I feel that in the cut we have proposed we have been exceedingly liberal, because I think we have cut to the bone.

Mr. KELLEY. Could we make it \$150,000?

Admiral GREGORY. I should hate to see you do it. This figure was de before I came here, and as soon as I saw it I realized it was ng to mean an enormous cut, and I do not think we could cut below figure at which we now have it, and I doubt whether I would e suggested as much of a cut as this.

WEDNESDAY, MARCH 22, 1922.

PINOLE SHOALS—MARE ISLAND CHANNEL.

**STATEMENTS OF BRIG. GEN. HARRY TAYLOR, ASSISTANT CHIEF F ENGINEERS, UNITED STATES ARMY; COL. THEODORE ROOSE-
ELT, ASSISTANT SECRETARY OF THE NAVY; AND REAR AD-
IRAL L. E. GREGORY, CHIEF, BUREAU OF YARDS AND DOCKS.**

Ir. KELLEY. What is your office in the Army, General Taylor?

General TAYLOR. I am the Assistant Chief of Engineers, and par-
larly in charge of rivers and harbor work.

Ir. KELLEY. You are familiar with the War Department im-
vements leading from San Francisco to Vallejo?

General TAYLOR. Yes, sir.

Ir. KELLEY. I wish you would make a brief statement as to the
ns of the War Department, what you are attempting to do, how
t the work is progressing, and when you expect to complete the
ject according to your plans. First, what the plans are; second,
stage of the work; and third, when you will be through.

General TAYLOR. The project which has been authorized by Con-
ss provides for a channel across Pinole Shoal, which is the shoal
th of the Mare Island Navy Yard or Vallejo, 35 feet deep at mean
water and 500 feet wide; also a channel 35 feet deep into the
re Island Straits. This is the channel across what is known as
ole Shoal [indicating on map] and leading up to this deep hole
this point [indicating] and into the Mare Island Strait, the
y yard being situated at this point [indicating]. On the 30th
June this channel was approximately 32 feet deep for the full
th of 500 feet.

Ir. KELLEY. That is, through the shoal?

General TAYLOR. Yes, sir. There remain some 600,000 yards to
aken out of that channel to complete it to the full project depth
35 feet. The dredge which is working on that shoal has a capacity
about 100,000 yards a month, so that if we should put a dredge
here and keep her continuously at work it would be a matter of
months to finish the work. Since that time the dredge has been
king in the Mare Island Strait along the front of the navy
d. Last June there was a depth of 35 feet in the channel, but
e that time a portion of it has shoaled and there is now a depth,
lieve, of 31 feet.

Ir. KELLEY. In front of the yard?

General TAYLOR. Yes, sir. That is not, however, the full width of
basin.

Ir. OLIVER. What is the extent of the shoal?

General TAYLOR. It is somewhere from 29 to 31 feet.

Colonel ROOSEVELT. That is, including the turning basin of 1,000 feet?

General TAYLOR. Yes, sir; there is a little greater depth in front of the navy yard. I think, where we have been working; I think it is very nearly 35 feet deep there, but on the side away from the yard there has been considerable shoaling.

Mr. KELLEY. Was that due to the piers, dikes, and other obstructions there giving way?

General TAYLOR. No, sir; the dike is of material assistance in maintaining this channel, and also in maintaining the channel into the navy yard.

Mr. KELLEY. What causes the filling up of the strait in front of the navy yard?

General TAYLOR. The material which is deposited in the channel and which is brought in largely from the shoals south of the yard.

Mr. KELLEY. And the only remedy for that is constant dredging?

General TAYLOR. Yes, sir. As I say, the dikes which have been built are of material assistance, but the dikes alone will not maintain the channel. If it were necessary to finish the channel earlier, we could, by putting in another dredge, complete it in a very short time. The dredge we are using is what we call a seagoing hopper dredge; it is a dredge which sucks the material off the bottom, pumps it into bins in the dredge itself, and then carries it away; we also have some pipe-line dredges, which are working on the Sacramento River farther up, and if necessary we could put one of them in there or we could put another hopper dredge in there.

Mr. KELLEY. So that within the next six months you could make your project depth of 35 feet?

General TAYLOR. We could not get the full depth over the full width in the Mare Island Strait Channel in six months; it would require considerable additional plant to do that—more plant than we have—in six months.

Mr. KELLEY. How long would it take to do it with your present facilities or with facilities that are easily available?

General TAYLOR. We could probably do it in a year and a half to two years.

Mr. KELLEY. That is, make the channel 35 feet deep for the full width of 500 feet and the basin 35 feet the full width?

General TAYLOR. Yes, sir.

Mr. KELLEY. Have you any idea as to the annual expense of maintaining it at that depth and width, both the channel and the basin?

General TAYLOR. Both the channel and the basin will probably cost \$200,000 a year to maintain.

Colonel ROOSEVELT. I want to get that clear in my mind. That is, it will cost \$200,000 a year to maintain the channel and basin regardless of what we do on the dikes?

General TAYLOR. The dikes assist; and without the dikes it would cost more.

Colonel ROOSEVELT. But it will cost \$200,000 to keep the channel with the dikes and everything in?

General TAYLOR. Yes, sir.

Mr. KELLEY. That is not a very exorbitant charge, is it, for dredging a project of that kind and for as large an establishment as we have there?

General TAYLOR. No, sir; I do not consider it so; I consider it a very small maintenance charge; it certainly is very small as compared with Philadelphia, for instance. It costs us \$1,500,000 a year to maintain the channel up to Philadelphia.

Mr. OLIVER. There is considerable commerce on that water, is there not?

General TAYLOR. There certainly is, and it is growing very rapidly.

Mr. OLIVER. And this will make it possible to use much larger boats?

General TAYLOR. There is a great demand for the maintenance of this channel across Pinole Shoal by the commercial interests, without any regard to the navy yard.

Mr. OLIVER. In other words, a large part of the work which we have been discussing is absolutely necessary in order to take care of the commerce?

General TAYLOR. Yes, sir; it is entirely independent of the needs of the Navy.

Colonel ROOSEVELT. Let me clear myself up on that. That means that there is a considerable amount of commerce up here, is there? [indicating on map]. The commerce goes up to Vallejo, does it?

General TAYLOR. There is a small amount of commerce up to Vallejo.

Colonel ROOSEVELT. The main commerce, then, is away down here? [indicating on map].

General TAYLOR. Yes; it is through the Pinole Shoal up to these establishments along on the east side of the bay and farther up.

NOTE.—The commerce passing through the Pinole Shoal channel in 1920 amounted to 1,302,778 tons, valued at \$36,503,808, and 885,406 passengers.

Colonel ROOSEVELT. I just wanted to get that clear, because we might meet that situation in Congress further along. Now, then, from this point [indicating], which is at the foot of the Mare Island Navy Yard, up to Vallejo there would be very little commerce.

Mr. KELLEY. Vallejo is just across the river from the yard.

Colonel ROOSEVELT. But the general said there was very little commerce up to Vallejo.

General TAYLOR. There is very little commerce that goes to Vallejo.

Colonel ROOSEVELT. So that in here [indicating] it would be purely navy yard dredging?

General TAYLOR. Yes, sir.

Colonel ROOSEVELT. How much of the \$200,000 does that represent?

General TAYLOR. That is approximately one-half.

Colonel ROOSEVELT. \$100,000. In other words, half would be used for the benefit of commerce and half for the benefit of the navy yard?

General TAYLOR. Yes, sir.

Colonel ROOSEVELT. Half would be purely for the navy yard.

Mr. OLIVER. The word "purely" would hardly cover it because there is limited commerce there, not so much as on the main body, but there is a limited commerce going up there.

Colonel ROOSEVELT. But I doubt whether it demands the draft.

Mr. OLIVER. I do not think 35 feet would be necessary for the commerce going up to Vallejo.

Mr. KELLEY. General, we are very much obliged and very much gratified.

Colonel ROOSEVELT. In this connection I want to make this further statement: At Mare Island we have only one dry dock capable of holding a battleship and that dry dock will only take our two older battleships, the Delaware and the North Dakota, so we will have to build another dry dock.

Mr. KELLEY. You will have to go to the Committee on Naval Affairs to get another dry dock.

Colonel ROOSEVELT. I just wanted you to understand that in connection with this particular situation, and I would just like to ask Admiral Gregory how much that dry dock would cost.

Admiral GREGORY. In the neighborhood of \$4,000,000.

Colonel ROOSEVELT. And the yard will then take from five to eight battleships, but there will have to be a new dry dock because this dry dock only takes the older battleships.

DRY DOCK FACILITIES ON THE WEST COAST, INCLUDING HAWAII.

Mr. OLIVER. What dry dock facilities have you on the western coast, including Hawaii?

Admiral GREGORY. Are you referring to large dry docks?

Mr. OLIVER. Yes.

Admiral GREGORY. We have a large dry dock at the Puget Sound Navy Yard, Bremerton, which will take any ship we now have; the one at Mare Island, as Colonel Roosevelt has just described, is limited in capacity and can only take two of the older battleships of those that are to be retained; there is nothing south of that on the coast until you get down to Panama, except I should say Hunter's Point. Hunter's Point has a dock which will take any ship we now have, and from there you jump all the way down to Balboa.

Mr. OLIVER. The Navy also has some shops at Hunter's Point?

Admiral GREGORY. Yes, sir.

Mr. OLIVER. And they are now in the control of the Navy for its needs?

Admiral GREGORY. Yes, sir. From there you jump down to Balboa and over to Pearl Harbor.

Now, Mr. Kelley, there was one particular thing we had the other day, in regard to a destroyer base, in which you conveyed the impression that authority for that destroyer base had not been given. I have looked it up and find that in the naval act of June 4, 1920, the Secretary of the Navy was authorized to accept from the city of San Diego a certain tract of land for this destroyer base.

Mr. KELLEY. There is no trouble about San Diego; I was speaking about Los Angeles, the submarine base.

Admiral GREGORY. There were several other points which were passed over, practically new, and you do not care to hear any more about them.

Mr. KELLEY. What were they?

Admiral GREGORY. There was one item in regard to the submarine base at Pearl Harbor—battery storage and overhauling building, \$64,000—which appeared to be a new proposition. An investigation shows that that is really an addition to the battery-charge

building, and, therefore, is an extension, so that item should receive consideration.

Then, the other items were such things as the storage for war heads torpedoes at Dan Diego, of which we wish to increase the capacity. We had an item in for \$200,000, and that one was not touched in the hearing the other day. It is on page 121 of the bill.

Mr. KELLEY. I think we had all of those, as everything seems to be marked on that page one way or another.

Colonel ROOSEVELT. Perhaps we did not have sufficient data, and this is what the Admiral is suggesting.

Admiral GREGORY. All the data was furnished that we were able to furnish, but that item, apparently, was passed over with so little comment that we had the impression that you were leaving it out of consideration.

Mr. KELLEY. Perhaps you are right.

Admiral GREGORY. Then, on that same page, is a proposition for a naval air station at Sand Point.

Mr. KELLEY. That is a new project and we will not discuss that. Colonel ROOSEVELT. I just want to make clear that the reason why I brought in my statement about the dry dock was because I wanted to make clear that the dredging of the channel would not provide a situation for handling battleships.

Mr. KELLEY. That is, if you want to dry-dock one of your larger ships?

Colonel ROOSEVELT. If we want to dry-dock any of the battleships which remain after this year at Mare Island, we must have another dock.

Mr. KELLEY. What is the matter with the dry dock you now have there?

Colonel ROOSEVELT. At Mare Island?

Mr. KELLEY. Yes.

Colonel ROOSEVELT. It is too small.

Mr. KELLEY. Is it too short?

Colonel ROOSEVELT. It has a depth at mean high water to keels of 28 feet and 9.5 inches, and that will only take the Delaware and North Dakota.

Mr. KELLEY. I should say that was a very worthy project for you to take up with the Naval Affairs Committee.

THURSDAY, MARCH 23, 1922.

OFFICE OF THE SECRETARY.

STATEMENTS OF COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY; MR. F. S. CURTIS, CHIEF CLERK; AND MR. ROY H. MOSES, ASSISTANT TO THE CHIEF CLERK.

SALARIES.

Mr. KELLEY. I notice that you have some increases in salaries here. You are asking this year for \$75,180 as against \$72,800. Tell us where these increases come in.

Mr. CURTIS. The appropriation for 1922 was \$117,800, plus details from other bureaus amounting to \$24,700.

Mr. KELLEY. We will confine ourselves to the statutory roll for the moment. Your estimate for the statutory people amounts to \$75,180, and you have this year \$72,800. That involves either some increases in pay or an increase in the number of employees.

INCREASE IN SALARIES OF CHIEF CLERK AND PRIVATE SECRETARY TO SECRETARY.

Mr. CURTIS. There is an increase in the salary of the chief clerk and the private secretary to the Secretary of the Navy.

Mr. KELLEY. You ask to have the chief clerk's salary increased from \$3,000 to \$5,000.

Colonel ROOSEVELT. The chief clerk, Mr. Curtis, has been with the department, first, for 10 years as appointment clerk, and then, after that, for 14 years as chief clerk. He is perfectly invaluable to us down there, and his salary now is only \$3,000. Quite a number of the other civilian employees in the department are paid higher salaries than that.

Mr. KELLEY. You are recommending that his salary be increased to \$5,000?

Colonel ROOSEVELT. Yes, sir.

Mr. KELLEY. You want him to have what you are receiving?

Colonel ROOSEVELT. Yes, sir. The majority of the other departments have more than \$3,000 for their chief clerks.

Mr. KELLEY. What does the chief clerk for the War Department get?

Mr. CURTIS. \$4,000.

Mr. KELLEY. Does any chief clerk that you know of get \$5,000?

Mr. CURTIS. No, sir; but under the reclassification they hope to go up to \$5,000.

Mr. KELLEY. That is one of the troubles about this matter of fixing salaries, because they are to be fixed so soon under the reclassification bill. At what amount is this item fixed in that bill?

Mr. CURTIS. At \$5,100.

Mr. KELLEY. For the private secretary to the Secretary you ask an increase from \$2,500 to \$3,600.

Mr. CURTIS. Mr. Denby is very much interested in that. I have a statement here that will show some of the decreases we have already made.

NOTE.—The following is a statement showing the number of employees in the Navy Department proper at Washington on various dates from April 1, 1917, just before we entered the war, up to and including January 1, 1922, viz:

Apr. 1, 1917.....	908
Nov. 11, 1918.....	16,388
June 30, 1920.....	2,600
June 30, 1921.....	2,113
Jan. 1, 1922.....	1,718

It will be noted from the foregoing statement that the Navy Department has reduced the number of its employees from 6,388 on November 11, 1918, to 1,718 on January 1, 1922, and, further, that while the number of employees increased about 700 per cent on account of the war it is now but 80 per cent greater than

¹ 4,000 of this number were naval reservists who were performing clerical work, some of whom were afterwards given civilian appointments under the provisions of the act of July 1, 1919.

the war. This increase is a perfectly natural and legitimate one, caused only by the increased size of the Navy, both in material and personnel, but by its increased activities in certain lines, such as aviation and the naval service, which, as the committee is no doubt aware, is turning into the surer of the United States as miscellaneous receipts hundreds of thousands of dollars each year on account of commercial radio work performed during that

showing the increase in the size of the Navy above given as one of the reasons for increased clerical force. I would call your attention to the following comparisons for the fiscal years 1917 and 1922:

	Fiscal year 1917.	Fiscal year 1922 (Dec. 31, 1921).
Number of civilian employees in Naval Establishment.....	35,265	58,771
Number of establishments in which civilians were employed.....	14	205
Number of enlisted men (including reservists).....	57,898	133,451
Number in the Navy (including those under construction).....	410	897

CLERICAL FORCE, SECRETARY'S OFFICE.

The Secretary's office of the Navy Department is a large office, consisting of the following divisions:

(1) Secretary's immediate office, (2) Assistant Secretary's immediate office, (3) chief clerk's office, (4) appointment division, (5) record and file division, (6) department supply division, (7) department discoursing office, (8) department post office, (9) quarterly survey office, inventions, and carpenter shop. The following statement shows the number of employees in the Secretary's office at various dates from April 1, 1917, to March 1, 1922:

1, 1917.....	60
11, 1918.....	139
30, 1920.....	138
30, 1921.....	114
1, 1922.....	96

From the foregoing statement it will be noted that the Secretary's office had a reduction in the number of its employees from 138 on June 30, 1920, to March 1, 1922, or a total of 42, and, further, that while the number of employees in the Secretary's office increased 130 per cent as compared with the same date before the war, this increase, as in the case of the Navy Department as a whole, being a perfectly natural and legitimate one, caused by increased activity and additional work thrown on the office.

Mr. KELLEY. Let us get this straight first: You are asking for one stenographer at \$1,200 instead of one at \$1,800 and one at \$1,200. Do you want to drop out one stenographer?

Mr. CURTIS. That is due to transfers to where they happen to be employed. There are transfers from and transfers to.

Mr. KELLEY. This one is to be transferred to the Office of Naval Intelligence?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. Are all the other changes you have indicated here on transfers, also?

Mr. CURTIS. Yes, sir.

Twenty-eight of this number were naval reservists performing clerical work. The reason why no decrease is shown between November 11, 1918, and June 30, 1920, is because of the very large amount of work devolving upon the appointment division in taking over into a civilian status naval reservists engaged upon work formerly performed by civilian employees as provided in the act of July 11, 1919, and in taking over by the record and file division of aviation files.

Mr. KELLEY. You are asking for no increases in salary and for increased number of positions?

Mr. CURTIS. No, sir; except those two.

TEMPORARY EMPLOYEES.

Mr. KELLEY. Referring to the temporary or lump-sum force last year you had a lump sum of \$45,000, and you are asking \$58,340.

Mr. CURTIS. That is due to the fact that there are individuals already there who are detailed to the Secretary's office from other bureaus. The number is shown there.

Mr. KELLEY. This increase in the lump sum is due to transfer from other offices to yours?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. But it does not involve any increase in pay or in number of positions?

Mr. CURTIS. No, sir. On the contrary, a reduction of five positions will result.

Mr. KELLEY. Where does this \$2,400 clerk come from?

Mr. CURTIS. From the Bureau of Construction and Repair.

Mr. KELLEY. He has been carried before on the roll of the Bureau of Construction and Repair?

Mr. CURTIS. Yes, sir. I would like to insert the following statement clearing up the matter of details of employees.

LEGISLATIVE, EXECUTIVE, AND JUDICIAL APPROPRIATION BILL, NAVY DEPARTMENT.

The following is a statement of details to and from bureaus showing that in all cases where bureaus have increased their estimates to take care of employment on detail from other bureaus, corresponding decreases have been made in estimates of the bureaus from which detailed; that there has been no increase in force asked by any bureau; also shows a net decrease of \$66,330.

	Statutory.	Lump sum.	Total
Secretary's office:			
Appropriated, 1922.....	\$72,800.00	\$45,000.00	\$117,800.00
Plus details from other bureaus.....			24,000.00
			142,800.00
Less details to other bureaus.....			6,000.00
			136,800.00
Estimated for 1923.....	75,180.00	58,340.00	133,520.00
Decrease.....			2,280.00
Solicitor:			
Appropriated, 1922.....	22,990.00	20,000.00	42,990.00
Estimated, 1923.....	22,990.00	19,920.00	42,910.00
Decrease.....			80.00
Naval records and library:			
Appropriated, 1922.....	21,000.00	20,000.00	41,000.00
Estimated, 1923.....	20,000.00	19,000.00	39,000.00
Decrease.....			2,000.00
Judge Advocate General:			
Appropriated, 1922.....	28,810.00	6,000.00	34,810.00
Plus details from other bureaus.....			2,000.00
			36,810.00
Estimated, 1923.....	26,810.00	6,000.00	32,810.00
Decrease.....			4,000.00

	Statutory.	Lump sum.	Total.
riated, 1922.....	\$25,650.00	\$40,000.00	\$65,650.00
ails to other bureaus.....			2,500.00
ed, 1923.....	26,650.00	33,920.00	63,150.00
ase.....			2,850.00
tions:			
riated, 1922.....		150,000.00	150,000.00
ails to other bureaus.....			8,500.00
ed, 1923.....		134,300.00	141,500.00
ase.....			7,200.00
riated, 1922.....	100,010.00	250,000.00	350,010.00
ails to other bureaus.....			1,400.00
ed, 1923.....	101,010.00	248,600.00	348,610.00
se for Chief Clerk.....			1,000.00
ences:			
riated, 1922.....	16,500.00	15,000.00	31,500.00
ails from other bureaus.....			1,800.00
			33,300.00
ails to other bureaus.....			1,600.00
ed, 1923.....	17,650.00	13,380.00	31,700.00
se.....			31,030.00
se.....			670.00
ic office:			
riated, 1922.....	120,760.00	110,000.00	230,760.00
ed, 1923.....	109,540.00	109,490.00	219,030.00
se.....			11,730.00
atory:			
riated, 1922.....	56,400.00		56,400.00
ed, 1923.....	56,400.00		56,400.00
space:			
riated, 1922.....	18,420.00	1,500.00	19,920.00
ed, 1923.....	18,420.00	1,500.00	19,920.00
riated, 1922.....	39,390.00	100,000.00	139,390.00
ails to other bureaus.....			18,120.00
ed, 1923.....	36,390.00	80,000.00	121,270.00
se.....			116,390.00
se.....			4,880.00
and Repair:			
riated, 1922.....	59,830.00	80,000.00	139,830.00
ails to other bureaus.....			17,340.00
ed, 1923.....	60,830.00	56,630.00	122,490.00
se.....			117,460.00
se.....			5,030.00
riated, 1922.....	31,830.00	40,000.00	71,830.00
ed, 1923.....	32,830.00	36,400.00	69,230.00
se.....			2,600.00
Accounts:			
riated, 1922.....	101,430.00	250,000.00	351,430.00
ails from other bureaus.....			2,120.00
			353,550.00
ails to other bureaus.....			8,900.00
ed, 1923.....	83,700.00	245,420.00	344,650.00
se.....			329,130.00
se.....			15,530.00

	Statutory.	Lump sum.	To
Medicine and Surgery:			
Appropriated, 1922.....	\$34,150.00	\$40,000.00	84
Estimated, 1923.....	25,150.00	37,000.00	62
Decrease.....			22
Yards and Docks:			
Appropriated, 1922.....	23,690.00	50,000.00	73
Less details to other bureaus.....			4
Estimated, 1923.....	24,690.00	32,760.00	69
Decrease.....			12
Aeronautics:			
Appropriated, 1922.....			4
Plus details from other bureaus.....			4
Estimated, 1923.....		43,310.00	6
Increase.....			3

Chief clerk's salary \$2,250, plus \$1,000 increase, submitted.

RECAPITULATION OF DETAILS TO AND FROM.

	From—		To—	
	Amount.	Number.	Amount.	No.
Secretary's office.....	\$6,520	5	\$34,700	
Judge Advocate General.....			2,600	
Operations.....	2,500	2		
Compensation board.....	8,500	7		
Navigation.....	1,400	1		
Office Naval Intelligence.....	1,600	1	1,800	
Engineering.....	18,120	15		
Construction and Repair.....	17,340	15		
Supplies and Accounts.....	8,900	5	2,120	
Yards and Docks.....	4,000	3		
Aeronautics.....			40,000	
Construction and repair of vessels.....	2,400	1		
Total.....	71,280	55	71,280	

	Increases.	Decreases.
Secretary's office.....		
Solicitor.....		
Library.....		
Judge Advocate General.....		
Operations.....		
Compensation board.....		
Navigation.....	\$1,600	
Naval Intelligence.....		
Hydrographic Office.....		
Naval Observatory.....		
Nautical Almanac.....		
Engineering.....		
Construction and Repair.....		
Ordnance.....		
Supplies and Accounts.....		
Medicine and Surgery.....		
Yards and Docks.....		
Aeronautics.....	2,250	
Total.....	4,250	
Net decrease.....		

he foregoing statement shows 55 details from or to various bureaus and es of the Navy Department, and further shows that in every case in which ncrease is estimated for in a bureau or office on account of details, a cor- onding decrease has been made in the estimates of other bureaus or offices account of such details. Since the preparation of the estimates on Sep- er 4 additional details have been made to the Bureau of Aeronautics, ely: 1 at \$1,200 from Navigation, 1 at \$1,200 from Engineering, 1 at \$1,100 a Yards and Docks, 1 at \$1,000 from Yards and Docks; and these amounts ld therefore be added to the Bureau of Aeronautics and deducted from the aus from which they have been detailed.

LIBRARY, CONTINGENT EXPENSES.

Mr. KELLEY. For contingent expenses, library, your current appro- tion is \$2,000, and you are asking the same amount.

Mr. CURTIS. That is for the library.

Mr. KELLEY. What is this money used for?

Mr. CURTIS. Principally for books. It is for technical books of kinds. We have tried to have it increased for many years, but e not succeeded.

Mr. KELLEY. How many volumes are there in the library?

Mr. CURTIS. I can put that in the record. It is quite a large library. ut 52,000 volumes.

Mr. KELLEY. This is simply to buy technical books and periodicals?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. It is the same amount you have had for a great many s?

Mr. CURTIS. Yes, sir.

CONTINGENT EXPENSES, NAVY DEPARTMENT.

STATIONERY, FURNITURE, NEWSPAPERS, ETC.

Mr. KELLEY. For contingent expenses for the Navy Department have an appropriation of \$75,000, and you are reducing that in estimate to \$70,000.

Mr. CURTIS. Yes, sir. For this present year we have obligated it \$38,000 and still have \$37,000 as of March 1, 1922. We will get ough the year all right and will probably turn \$10,000 into the asury. Last year we had \$100,000 and we turned back into the asury \$9,480. Of course, we are still drawing on the excess k of chairs, desks, and things of that kind that we had during the . We do not buy any new typewriters.

Mr. KELLEY. This is used for incidental expenses, stationery, niture, drafting materials, upkeep of automobiles, typewriters, puting machines, postage, etc.?

Mr. CURTIS. Yes, sir.

Mr. BYRNES. How much longer will your supplies of furniture typewriters last?

Mr. CURTIS. It is pretty difficult to say, but I imagine they will out materially for a year or so yet.

Mr. BYRNES. For another year anyway?

Mr. CURTIS. Yes, sir; there is a rather odd thing about the type- er situation. We are buying secondhand typewriters from the eral Supply Committee excess now. For a long time we bought

typewriters at \$62.50 and used them for three years and then exchanged them at an allowance of \$50 for a new machine, but since the Government has had this large excess we are compelled to use machines much longer than three years and the exchange value depreciates each year.

Mr. KELLEY. This is expended under the direction of the Secretary?

Mr. CURTIS. Yes, sir; we make the allotments. We have turned back \$5,000 worth of material to the General Supply Committee this year.

PRINTING AND BINDING.

Mr. KELLEY. For printing and binding for the Navy Department you have an appropriation of \$250,000 this year?

Mr. MOSES. We are asking the same amount for 1923. Last year we spent about \$225,000 of our appropriation of \$250,000, but we had about \$30,000 worth of uncompleted work remaining in the Printing Office on June 30, 1921, that they were unable to give us, and, of course, that was charged against the appropriation this year. The same condition will exist next June and we will start out handicapped to that extent.

Mr. BYRNES. You can count on a reduction in the cost of printing and binding, can you not, during next year?

Mr. MOSES. I think there will be some slight reduction.

Mr. BYRNES. The representative of the Printing Office told us on one of the subcommittees that we could count on a reduction of 15 per cent on paper and stuff of that kind that would enter into the total cost.

Mr. MOSES. I know there has been some reduction already, but I do not know how much.

Mr. BYRNES. That is what they are figuring on at the Printing Office for next year.

Mr. MOSES. That would help us that much, of course.

Mr. KELLEY. This \$250,000 is spent for printing for the Secretary's office?

Mr. MOSES. No, sir; it is for printing for the entire department and for a great deal that is required by the naval establishment. All of our blank forms—and millions of blank forms are required—are printed from this.

Mr. KELLEY. Can you do all of that work for \$250,000?

Mr. MOSES. We do that; yes, sir.

Mr. KELLEY. Do you not have another fund?

Mr. MOSES. Yes, sir; in addition to that we have the repay printing.

Mr. KELLEY. What does that amount to?

Mr. MOSES. The estimate for 1923 is \$350,000. It ran \$608,000 last year, \$498,000 in 1920, \$1,050,000 in 1919, and nearly \$1,000,000 in 1918. This year it is estimated at \$398,000.

Mr. BYRNES. Explain that item.

Mr. MOSES. Those are naval appropriations that are available for printing for naval purposes. You authorize a battleship and we do the printing of the specifications, etc., out of the appropriation "Construction and machinery." It all depends on the amount of activity in the naval service as to how much is spent.

Mr. BYRNES. I mean, where do you get your repay part of it?

Mr. MOSES. Well, the Printing Office does the work on our requisitions; they send us the bill and we pay it out of the naval appropriations, "Construction and machinery," "Ordnance and ordnance stores," etc.; there are 20 or 30 different appropriations out of which we pay for printing.

Mr. BYRNES. That makes the total amount you have available for printing and binding what?

Mr. MOSES. There is no certain amount in the naval appropriations which we consider available for printing and binding. If you give \$100,000,000 for increase of the Navy we may use \$5,000 or \$10,000 whatever is necessary for printing. There is no limitation.

Mr. KELLEY. Do you mean that if the Bureau of Supplies and Accounts places an order with you for printing they pay you for it?

Mr. MOSES. No, sir; they pay the printer; he renders a bill.

Mr. KELLEY. Does this \$250,000 come to you or to the printer?

Mr. MOSES. That is paid direct to the printer; it is a transfer of appropriations on the Treasury books.

Mr. KELLEY. Is \$600,000 your estimate for all the printing that is to be done in the Navy Department during the coming year?

Mr. MOSES. That is our estimate for the coming year.

Mr. KELLEY. How is that distributed among the bureaus?

Mr. MOSES. The naval appropriations are simply used as the printer is required. When you authorize certain public works they need certain specifications to carry on their work and the same is true of increase of the Navy. It all depends on the amount of naval activity; in fact, we have \$420,000,000 or \$430,000,000 this year, and we are only expending \$398,000 for printing, showing that we are not printing any more than we need.

Colonel ROOSEVELT. We had a meeting of the council at one time and discussed the reports that were being printed; we tried to eliminate certain of the reports, and we did eliminate some, but instead of treating them as separate bureaus we treated them as a general problem entirely, and that is the way we have been treating the entire question:

(Statement of savings in annual reports follows:)

Saving on annual reports.

	1920 reports.	1921 reports.	Savings.
Medicine and Surgery.....	\$2,080.72	\$947.73	\$1,112.99
Nance.....	119.79		119.79
Sheds and Docks.....	46.16		46.16
Navigation.....	241.84		241.84
Hydrographic Office.....	108.15		108.15
Naval Observatory.....	112.95		112.95
Engineering.....	303.59		303.59
Construction and Repair.....	524.59		524.59
Supplies and Accounts.....	23,700.39	11,189.57	12,510.82
Naval Advocate General.....	219.06		219.06
Director.....	84.22		84.22
Naval Corps.....	103.23		103.23
Secretary's office.....	4,493.82	522.36	3,971.46
Department.....	1,249.49	1,950.00	1,290.49
Total.....	33,368.02	13,609.66	19,758.36

Estimated.

Mr. KELLEY. And hereafter you are going to estimate the printing for the entire Navy Department?

Colonel ROOSEVELT. Yes, sir; we are treating it as an entire situation.

Admiral COONTZ. I do not think he understood you.

Mr. KELLEY. Let us get it straight in the record. Was Colonel Roosevelt wrong?

Admiral COONTZ. We do not make an entire appropriation for the Navy Department.

Colonel ROOSEVELT. No; and that is not what I meant. What I meant was that we were treating it as an entire problem in trying to cut down expense.

Mr. KELLEY. I am not quite clear as to just what the estimate for printing, amounting to \$250,000, is for.

Mr. MOSES. That is the printing for the Navy Department and all its bureaus; millions and millions of blank forms, specifications for the purchase of millions of dollars' worth of supplies, annual reports, etc.

Mr. KELLEY. And, in addition to that, they can spend out of their other appropriations sums of money for printing?

Mr. MOSES. Whatever is required for naval purposes.

Mr. KELLEY. Without any limitation?

Mr. MOSES. Yes, sir. The most we have ever spent was \$1,000,000, and that was when we had \$2,000,000,000 available.

Mr. KELLEY. You have here a statement showing the amount expended for printing, starting with 1916?

Mr. MOSES. Yes, sir.

Mr. KELLEY. I think, perhaps, you had better put that in the record.

(Said statement follows:)

Comparative statement, printing and binding, Navy Department.

Year.	Repay.	Allotment.	
		Available.	Expended.
1916.....	\$194,260.00	\$145,000.00	\$145,261.32
1917.....	471,289.04	275,000.00	312,770.20
1918.....	964,344.75	419,229.80	408,777.75
1919.....	1,053,197.85	500,000.00	496,794.17
1920.....	498,192.16	300,000.00	399,071.48
1921.....	¹ 608,070.55	250,000.00	225,957.00
1922 (8 months).....	265,408.39	250,000.00	² 170,280.00
1923 (estimated).....	350,000.00	250,000.00	

¹ The increase for 1921 over 1920 undoubtedly caused by section 11 of the act of Mar. 1, 1919, providing that all printing and binding shall be done at the Government Printing Office, except urgent work to be done in the field service.

² This figure represents amount of work billed and nearly \$80,000 estimated work now in the Government Printing Office not completed, leaving available unobligated balance of \$73,714.53 for the remaining ten months of the fiscal year.

Mr. KELLEY. Admiral, I take it to be the purpose of the department to hereafter include in this item all the printing for the Navy Department and estimate for it in one place.

Admiral COONTZ. No, sir. This is not an appropriation of money; you are not appropriating any money for this except as it goes through the various bureaus. It is not anything for which this committee is appropriating any money.

Mr. KELLEY. That is to say, the money is already in other appropriations?

Admiral COONTZ. Yes; and they pay the Public Printer through the Secretary's office.

Mr. KELLEY. Would it not be more business like for us to take the printing item out of the other appropriations and have you estimate it separately?

Admiral COONTZ. I think it might be seriously considered. It is a question that never came up before and I never heard of it. This is not in our appropriation bill and we are talking about something that is not in our appropriation, but I think it is worthy of consideration.

Mr. KELLEY. Mr. Moses, the statement you hand me shows the amounts that have been paid by the other bureaus in addition to what you have expended?

Mr. MOSES. In addition to the departmental fund; yes, sir.

Mr. KELLEY. This gives not only the total expenses of the Secretary's office but of all the Navy Department?

Mr. MOSES. Yes, sir; every bureau in the naval establishment. It shows all the appropriations out of which we print for the field service.

Mr. KELLEY. I think it would be a good idea to put that in the record, too.

(Said statement follows:)

Repay printing, Navy Department.

Appropriation.	Fiscal year 1921.	Eight months of fiscal year 1922.
Al supply account fund.....	36,658.49	\$74,723.41
Engineering, navigation.....	10.19	297.46
Construction and machinery.....	32,523.99	8,364.41
Transportation, navigation.....	3,446.15	168.12
Miscellaneous.....	102,064.82	27,452.99
Education, enlisted men.....	16,560.78	3,091.49
Engineering, medicine and surgery.....	42,663.33	17,253.40
Printing and miscellaneous expenses, Naval Academy.....	944.76	1,246.84
Al supply account, general account of advances.....	96,822.23	.....
Engineering and engineering exercises.....	28,270.79	8,964.11
Maintenance, yards and docks.....	14,734.50	9,730.94
Maintenance and ordnance stores.....	38,473.89	20,153.45
Al training station, Great Lakes.....	53.38	.....
Base Navy, torpedo boats.....	4,016.34	2,264.20
Engineering.....	24,770.35	7,638.12
Construction and repair.....	17,164.14	9,312.56
Equipment and supplies.....	10,586.39	9,285.96
Organizing Naval Reserves.....	7,076.77	23,204.83
Navigation and Lake Survey.....	67,561.92	5,858.86
Maintenance, Naval Home.....	71.09	30.58
Maintenance, supplies and accounts.....	24,273.02	24,163.55
Maintenance and repairs, Naval Academy.....	4,800.29	302.67
Al emergency fund.....	4,559.71	.....
Education.....	5,836.06	172.60
Expenses, Naval Consulting Board.....	3,088.16	.....
Miscellaneous receipts, proceeds of sale.....	3,554.11	1,197.64
Sailors' stores, Naval Academy.....	684.72	.....
Printing and small stores fund.....	512.12	1,244.34
Printing and miscellaneous expenses, Hydrographic Office.....	5,019.27	.....
Printing and expenses, naval service statements.....	.....	75.12
Total.....	506,782.36	256,101.66
Al Corps.....	41,288.19	9,306.74
Grand total.....	608,070.55	265,408.39
Monthly average.....	50,672.55	22,117.36
Estimated for full fiscal year 1922.....	.....	265,408.39

WEDNESDAY, MARCH 22, 1922

PAY. MISCELLANEOUS.

STATEMENTS OF HON. EDWIN DENBY, SECRETARY OF THE NAVY: COL. THEODORE ROOSEVELT, ASSISTANT SECRETARY; MR. CURTIS, CHIEF CLERK; ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS; LIEUT. COMMANDER HARRY W. HILL, CHIEF OF THE ADMIRAL; REAR ADMIRAL DAVID POTTER, CHIEF OF BUREAU OF SUPPLIES AND ACCOUNTS; CAPT. T. W. LEWIS, CHIEF ASSISTANT; MR. CLYDE REED, SPECIAL ASSISTANT; REAR ADMIRAL JOHN K. ROBISON, CHIEF OF BUREAU OF ENGINEERING; CAPT. GEORGE W. STEELE, JR., BUREAU OF NAVIGATION; MR. LUKE McNAMEE, INTELLIGENCE DIVISION; COMMANDER EDWARD NOYES, OFFICE DIRECTOR NAVAL COMMUNICATIONS; REAR ADMIRAL J. L. LATIMER, JUDGE ADVOCATE GENERAL; AND COMMANDER G. J. ROWCLIFF.

COMMISSIONS AND INTEREST, TRANSPORTATION OF FUNDS, ETC.

Mr. KELLEY. Pay, miscellaneous: For commissions and interest, etc. This item covers a long list of purposes for which last year you had \$3,500,000. What is your revised estimate this year?

Admiral POTTER. \$3,255,000. I am charged with subheads 9, and 11.

Mr. KELLEY. Suppose we go right down the list and save in the different officers as we reach the various items.

Admiral POTTER. Shall I go ahead with subhead 1?

Mr. KELLEY. Yes.

Admiral POTTER. This subhead is chargeable with losses on bills of exchange and with adjustments from the purchase rate of foreign currencies to the Treasury issue rate. It is creditable with "losses on exchange."

Under a decision of the Comptroller of the Treasury dated February 28, 1921, the Navy has authority to purchase and issue foreign depreciated paper currency at the actual cost to the United States. It must, however, in the case of countries still on their normal gold or silver basis, issue such currencies at the mint par value.

The country in which gains or losses on exchange are most frequently incurred is China. The Treasury Department sets a rate monthly for the issue of Chinese, Mexican, Yuan, and Hong Kong dollars. This rate is based on the average commercial price of gold bullion. The rate at which this currency is purchased is of course fixed by the supply and demand between China and the United States for commercial credit. Apparently from July 1 to date the cost to the United States per unit of these currencies has been greater than the issue rate fixed by the Treasury, and therefore has resulted in an average loss chargeable to subhead 1 of this appropriation.

The following table shows the issue rate of the Mexican currency in China set monthly by the Treasury Department:

1921—July	.....	\$
August	.....
September	.....
October	.....

November	.....	\$0. 5631
December	.....	. 5395
January	.....	. 5224
February	.....	. 5171
December	.....	. 5187

Generally speaking, there should always be a net loss chargeable to subhead for the reason that, as foreign currencies are based on metal contained as compared to United States currency, we naturally charge a premium in purchasing bills of exchange in amount sufficient to cover the interest on the money tied up in date of purchase and date of liquidation of a bill of exchange. Furthermore, this subhead is chargeable with any loss on exchange due to sale of foreign currency before a ship leaves the country in which it is current. That losses on exchange have been reduced is apparent from the following—

KELLEY. That is \$100,000?

Admiral POTTER. Yes, sir. I have a statement which shows how we have run during the past three years. In 1919 it was almost \$1,000,000; in 1920 it was again almost \$2,000,000; in 1921 it was \$1,000,000, in round numbers; and in 1922 it looks as though it will be \$1,000,000.

KELLEY. If silver should become more valuable you would not be doing anything; is that right?

Admiral POTTER. If you care to construe it in that manner.

KELLEY. Is not that the secret of this thing, that when silver becomes more valuable you had to make up the difference?

Admiral POTTER. The Treasury fixes the rate at which we can issue our issues. However, we have to purchase it for what it costs.

If a yen costs 60 cents we must issue it at 53 cents, according to Treasury Department regulations, and hence there would be a loss on every piece of money handed out.

KELLEY. That is to say, the boys who convert their money from Japanese money, we will say, on the basis of a fixed regulation, lose money if the price of silver were higher than when you made your regulation, and you would have to make up the difference?

Admiral POTTER. That is what it amounts to; yes, sir.

MILEAGE TO OFFICERS.

KELLEY. The next is mileage to officers.

Admiral STEELE. The current allotment for the subhead 2 is \$1,000,000. The Bureau of Navigation requested \$700,000, because in the fiscal year 1921 \$780,000 was expended under that subhead; but the Budget officer has allocated \$650,000 under the estimates for

KELLEY. Does this cover the entire clause contained in the bill regarding:

Traveling expenses of the Navy and Naval Reserve Force while traveling in the United States, and for actual personal expenses of officers of the Navy and Naval Reserve Force while traveling abroad under orders, traveling expenses of civilian employees, and for mileage, at 5 cents per mile, to midshipmen entering the Naval Academy while proceeding from their homes to the Naval Academy for examination and appointment as mid-

Admiral POTTER. No, sir; subhead No. 2 does not include the traveling expenses of civilian employees.

Mr. KELLEY. One part taken out of that clause is for the traveling expenses of civilian employees?

Captain STEELE. Yes, sir; but it includes the traveling expenses of female nurses.

Mr. KELLEY. There is a clause ending with the word "midshipmen." Have you a copy of the bill before you?

Captain STEELE. No, sir; I have not.

Admiral COONTZ. That subhead stops after the words "female nurses."

Mr. KELLEY. Mileage to officers of the Navy and Naval Reserve Force while traveling under orders in the United States. How much is that?

Captain STEELE. We have not that split up, Mr. Kelley.

Mr. KELLEY. What are the details of the \$650,000 as you have worked them out?

Captain STEELE. I have no statement showing what part of these requires certain sums; I only have the total that we expended in the year 1921.

Mr. KELLEY. And that was \$780,000?

Captain STEELE. Yes, sir.

Mr. KELLEY. And you are making a reduction, based on some economies you have put into effect, perhaps, since then—is that the idea?

Captain STEELE. Yes, sir. We have reduced the travel of all officers and others to a minimum and have utilized Government transportation to the fullest extent.

NUMBER OF REGULAR OFFICERS 1921.

Mr. KELLEY. Do you remember how many regular officers you had in the Navy in 1921?

Captain STEELE. Yes, sir; we had about 5,300; at least, that would be an average.

Mr. KELLEY. I suppose that included the reserve officers you had on active duty at that time?

Captain STEELE. No, sir; that would include the temporary officers, of which we dispensed with about 1,100 last December.

Mr. KELLEY. Then you had 5,300 line officers, and how many staff officers?

Captain STEELE. There has been very little change in the staff officers, sir.

Mr. KELLEY. Then about 2,000?

Captain STEELE. Yes, sir; and about 1,300 warrant officers, line and staff.

Mr. OLIVER. When did you dispense with 1,100—last December?

Captain STEELE. The temporary officers were all relieved from duty the 31st of December, but we began dispensing with their services—

Mr. OLIVER (interposing). Do you happen to know whether or not they were estimated for in the Budget of 1923?

Captain STEELE. They were not, sir.

Mr. OLIVER. In other words, you had communicated the fact that I intended to dispense with them and they were not included in the Budget estimate for 1923?

Admiral COONTZ. It was by operation of law.

Mr. KELLEY. The law provided that on a certain date you might have over a certain number, not to exceed a certain number, and that others would have to be discharged?

Admiral COONTZ. Yes, sir.

Secretary DENBY. Not to exceed 1,200.

Mr. KELLEY. Does this include commissioned and warrant officers when they travel?

Captain STEELE. Yes, sir.

Mr. KELLEY. How many of those did you have in 1921?

Captain STEELE. Eight thousand seven hundred and twenty-one on July 1, 1921.

Mr. KELLEY. You can put that in accurately, but for the purposes of calculation, can you give us offhand how many there were?

Admiral COONTZ. We increased them because some went back to warrant officers; my guess would be about 1,200 in 1921 and 1,360 now. Is not that right?

Captain STEELE. That is fairly accurate, I think, sir.

Mr. KELLEY. That is, there would be 1,200 in 1921 and more now?

Captain STEELE. Yes, sir.

Mr. OLIVER. Admiral Coontz, state whether or not you feel the needs of the Navy will be fully met with some diminution in your personnel in the warrant grades and petty officer grades.

Admiral COONTZ. That would be entirely for Admiral Washington, who is in entire charge of the business, to discuss with you, and I do not know. I will have to make an inquiry and put an answer in the record.

Mr. OLIVER. I wish you would.

Admiral COONTZ. Very well.

NOTE.—After consulting with Admiral Washington, I find that we have just about enough boatswains (when I say boatswains I include chief boatswains; also for gunners, etc.). There is a small excess of ordnance gunners, but this will be reduced by the probable retirement of ex-gunners, who were commissioned lieutenants after fifteen years service. There is also an excess of electrical fitters, but a considerable shortage in radio gunners. The number of carpenters and pharmacists is slightly in excess of the requirements. The number of pay clerks is about correct. We are short of machinists. As to much for the warrant officers. The service has an excess of petty officers, owing to the large number which were rated for service on auxiliary and other vessels during the war and the many vessels placed out of commission since the armistice.

Mr. KELLEY. This coming year the number of officers of the line is 4,000.

Admiral COONTZ. Four thousand one hundred and four hundred, I think.

Mr. KELLEY. Four thousand one hundred in round numbers?

Admiral COONTZ. Yes.

Mr. KELLEY. There are 4,100 of the line, and you say there are 4,000 more, which would make 4,500?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Including the naval auxiliary service?

Captain STEELE. Yes, sir.

Mr. KELLEY. If we take out those 400, that would make 4,100 you say 2,000 in the staff, which would make 6,100, and you tl Admiral, the warrant grades would now be higher?

Admiral COONTZ. Yes: I think they would be much higher; guess would be about 1,360 against 1,200.

Mr. KELLEY. \$700,000, that was the actual expense for this last year?

Captain STEELE. \$730,000.

Mr. KELLEY. Based on an estimate of 8,500?

Captain STEELE. Yes, sir.

Mr. KELLEY. This would run up to about 7,900 for the cor year, and you have made the deduction of about the ratio that t figures would bear to each other?

Captain STEELE. Practically; yes, sir.

Mr. BYRNES. You have made a reduction of \$80,000?

Captain STEELE. From \$730,000 to \$650,000.

Mr. BYRNES. That is due to the reduction in the number and n any economies that were effected?

Captain STEELE. The Bureau of Navigation requested \$700,000 the Budget officer allocated \$650,000.

Mr. KELLEY. And your estimate now is \$600,000?

Admiral COONTZ. No; \$650,000.

Captain STEELE. \$650,000.

Admiral COONTZ. The Budget officer made that reduction a going into the situation very carefully, the officers, conditions, everything, and reduced it that much.

Secretary DENBY. The reduction of personnel would not re the mileage during the period the reduction was taking place. cause you have to bring the men home—the transportation.

Mr. KELLEY. You will probably bring the ships home?

Secretary DENBY. Even then they would have to be sent to tl home cities.

Mr. KELLEY. These are officers?

Secretary DENBY. But they have to be gotten to other duty f these decommissioned ships.

Mr. KELLEY. They are not discharged?

Secretary DENBY. But should there be a heavy reduction in tl men they have to be gotten home.

Mr. KELLEY. There is not any reduction to be made except w has already been made.

Mr. BYRNES. I think there is a misunderstanding. The Secret thinks that we are talking about men. We are discussing only officers, in which there is no reduction proposed.

Admiral COONTZ. The final number is 8,018 officers and war officers for the year.

Mr. KELLEY. Admiral, how do you handle these assignments the officers with a view to effecting the greatest economy and carry out your plans of operation?

Admiral COONTZ. The method is, as far as possible, to order officers to as short distances as possible, and also, in the travel f the Pacific to the Atlantic and from the Atlantic to the Pacific send them by Government transports whenever possible. A majo

f the fleet is now in the Pacific, and the homes of the officers and men are in the East. Also, the center of population is still east of the Mississippi River. For that reason it is a little unbalanced. If most of them lived west of the center of Kansas it would be different, but we move them all we can by public transports. Whenever we can we send an officer on a ship making the trip. The other day we had to send an officer to Charleston. We had a destroyer going from Philadelphia to Charleston and we sent the officer to Philadelphia on that ship. We are watching the mileage with the utmost care and every tendency to economy.

TRAVELING EXPENSES, CIVILIAN EMPLOYEES.

Mr. KELLEY. The next item is, "Traveling expenses of civilian employees"?

Mr. CURTIS. The allotment is \$270,000. For this reason, in July the Secretary sent out a warning—

The appropriation "Travel expenses of civil employees" will not be sufficient to cover the cost of travel of civilian employees during the fiscal year 1922 unless the department exercises rigid economy in travel expenses and that no travel be performed except that which is absolutely necessary. In this connection the department desires to most forcefully emphasize that the "absolutely necessary" shall not be used to cover things needed merely for the purpose of desirability or convenience.

The expenditures up to January 31 amounted to \$131,000. That leaves a balance of \$139,000, which would indicate that we can get through the year all right. For 1923 they reduced the estimated allotment to \$240,000.

Mr. KELLEY. What are these civilian employees mostly?

Mr. CURTIS. They are mostly draftsman and technical employees who have to go out for inspection purposes.

Mr. KELLEY. Will not that fall off quite a bit the coming year because of the reduction in the building program?

Mr. CURTIS. We have anticipated that cut by taking off \$30,000 from our estimate. As to whether it will be greater than that, we cannot tell at the present time.

Mr. KELLEY. I suppose that possibly the scrapping and all that will make inspection and travel quite necessary?

Admiral COONTZ. Yes, sir; for a year or two. While under the terms of the treaty we are scrapping, this travel would have to be carried on. In addition, there are some things that will keep on. Take, for instance, repairs to radio installation. A tower blows down, and we would probably send the people from the nearest station to repair it.

Mr. KELLEY. That is what you had in mind, that there would be a shrinkage in the demand for the technical people?

Admiral COONTZ. Yes, sir; at the time we put that in.

Mr. KELLEY. With the broader light, showing the path a little clearer, possibly you can reduce it a little further?

Admiral COONTZ. No, sir; I do not think so. We cut it down as far as we thought we could do with safety.

Mr. KELLEY. Have you the figures showing the travel expense of civilian employees in 1916?

- Mr. CURTIS. No, sir. I can introduce that into the record, be we make the report every year. For 1916 as compared with the year?

Mr. KELLEY. If you please.

Mr. REED. I have it not at hand.

Mr. KELLEY. You can put it in the record?

Mr. CURTIS. Yes, sir.

NOTE.—For 1916, \$60,934.12; for 1921, \$405,169.16.

- Mr. KELLEY. Of course, the rate of transportation is higher it was in 1916, and I well understand that for a few months at any there might be quite a bit of travel.

Mr. BYRNES. In making the reduction you could not judge travel that might be necessary in connection with the scrapping.

Admiral COONTZ. I will say positively that I went over this: on the 3d of March and cut it down to \$240,000.

Mr. KELLEY. You went carefully over the travel when you took the \$30,000?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You have industrial plants all over the country work going on?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And you have to have inspectors go there and after that?

Admiral COONTZ. There is more or less travel which we just cannot stop.

Commander HILL. There is so much unknown. In the first place the treaty has not yet been ratified and the stoppage has been temporary. We do not know how much travel will be needed.

Mr. KELLEY. This is open at both ends just yet?

Commander HILL. Yes, sir.

Mr. KELLEY. Is there anything else, Mr. Curtis?

Mr. CURTIS. I have three other items that will come later, but is all on this item.

ACTUAL EXPENSES OF OFFICERS WHILE ON SHORE PATROL DUTY, HIS LAUNCHES, ETC.

Mr. KELLEY. "Actual expenses of officers while on shore patrol duty"?

Admiral POTTER. That is assigned to me, together with his launches or other small boats in Asiatic waters, relief of vessels in distress, recovery of valuables from shipwrecks, quarantine expenses, claims for damages for loss of property, ferriage, tolls—street fares—and other necessary and incidental expenses.

Mr. KELLEY. How much is that?

Admiral POTTER. The total we have estimated for is \$300,000.

Mr. KELLEY. That is quite a different classification?

Admiral POTTER. Yes, sir; it is a catchall. That is subhead 11. It is a catchall for what you can not classify elsewhere, but it can be assembled somewhere. Without too much clerical labor we find it impracticable to submit any detailed distinction between the different groups and they are assembled under subhead 11.

Mr. KELLEY. How much is that?

Admiral POTTER. \$300,000 we estimate. In 1921 the actual expenditure was two hundred and eighty-three and odd thousand dollars, and in this present year it is running \$400,000, but undoubtedly there will be a considerable diminution next year, and we have estimated \$300,000. Each one of these has a voucher; there are thousands of them. We have not tried to list them here.

Mr. KELLEY. It seems a little odd that these items will cost more next year than in 1921.

Admiral POTTER. There is a slight margin, of course, between the \$283,000 and \$300,000, but we just followed that because these expenses will not probably be diminished, and the expenses of officers on shore patrol duty have been very heavy on the west coast, around San Diego base, where they have to patrol the shore every day. That is just an estimate. All you can do is to guess at it; you can not pretend to be accurate.

RENT OF BUILDINGS AND OFFICES NOT IN NAVY YARDS.

Mr. KELLEY. The next item is "For rent of buildings and offices not in navy yards."

Admiral POTTER. In 1921 we had \$590,000 and for the present year \$300,000. With the economies effected since March 4 last, we are estimating for 1923, \$180,000. I have that in detail.

Mr. KELLEY. You have that in detail?

Admiral POTTER. Yes, sir; showing each section of the country; in fact, I have every building listed and its purpose.

Admiral COONTZ. We have gone into that with the greatest care, and wherever we have been able to obtain a Government building we have done so.

Mr. KELLEY. What is the chief item?

Admiral POTTER. I can pick out two or three. Suppose I read a six or seven items in the third naval district, New York. One thousand two hundred and fifteen linear feet of bulkhead space for a Navy supply depot, \$21,000, in round numbers. Then we have a yard, that is one section of an aircraft storehouse, which is used, however, as boat storage. That is \$7,000. Then there is land on which warehouses 1 and 2 are located, between Thirtieth and Thirty-third streets, South Brooklyn, \$46,000. Some land bounded by Second and Third Avenues, Thirty-first and Thirty-second Streets, known as Bush "third lot," \$20,000. Then there is the garage at Taylor street, \$14,000. Then there is space used by the Naval Medical Department, South Brooklyn, \$9,000, and office of the inspection board up the town, \$1,600.

Admiral COONTZ. We have succeeded in obtaining space for the third district offices in the South Ferry building free of rent.

Mr. KELLEY. How did you happen to get that for nothing?

Admiral COONTZ. New York City is kind to us. I would state that I went up to New York myself as Budget officer and went over a lot of these buildings about six months ago. We have come down to this estimate of \$180,000 for next year from \$3,250,000 three years ago. We hope that from month to month we can do better. We have every rented building under constant surveillance and are continually trying to see if we can not get other free buildings from a post office or something like that.

Mr. KELLEY. This does not include the recruiting service?

Admiral COONTZ. No, sir.

Mr. KELLEY. There is a special appropriation for that: it is out of training and recruiting?

Admiral COONTZ. Yes, sir.

PRISONERS AND PRISONS.

Mr. KELLEY. The next item is, "Prisoners and prisons?"

Commander HILL. The prisoners are in prisons at Portsmouth, Parris Island, Mare Island, and some out at Cavite. This covers all the cost of heating and lighting those places. It covers all cost of the prisoners, small stores, clothing outfits, and their transportation to and from the prisons, and the outfit of civilian clothes that they are given on discharge, etc. For instance, we had Newport investigation that took place a year ago and the cost, which is charged against this appropriation, was about thirty or forty thousand dollars. In other words, all of these items on pay, miscellaneous, are a sort of catchall; they are all small things that not be estimated for exactly.

Mr. KELLEY. How much did you spend in 1921 for this purpose? Commander HILL. I will have to put that in the record.

Admiral POTTER. In 1921 we spent \$460,250.08.

Mr. KELLEY. How much have you spent so far this year?

Mr. REED. Up to the 1st of March, \$177,140.96.

Admiral POTTER. The total allowance for the year was \$245,000.

Mr. KELLEY. You have made the reduction then on the same number of men?

Commander HILL. Yes, sir; the number of prisoners is about 1,346 or 1,350, roughly. That is decreased. There is a certain amount of this appropriation that will go down with the number of prisoners. There is a certain amount of overhead, which, if we had no prisoners, we would still have to pay—maintaining heat and light. They are fixed charges; and, then, the cost of investigations, which may run as high as \$30,000 or \$40,000.

Mr. KELLEY. When they are discharged, if it is an honorable discharge, you give them a civilian suit of clothing?

Commander HILL. Yes, sir; a civilian outfit that has been costing about \$20. They are now reducing that and they have gotten it down to \$15 and hope to reduce it to \$12 by taking old clothes and renovating them in the installation they have at Portsmouth.

Secretary DENBY. I hope the number of prisoners will go down.

Mr. KELLEY. You can control that, Mr. Secretary?

Secretary DENBY. Yes, sir; to a certain extent. I have issued an order, for example, that no man under 18 years of age, who does not shall undergo a prison sentence or get a dishonorable discharge. The Navy is going to take in men under 18 years of age, I do not propose to see them undergo a prison sentence if they desert. It will help some.

NEWSPAPERS, PERIODICALS, AND ADVERTISING.

Mr. KELLEY. The next item is newspapers, periodicals, and advertising.

Mr. CURTIS. That is an item of \$20,000, advertising, \$6,000; and periodicals, \$14,000.

Mr. KELLEY. What are these—technical papers?

Mr. CURTIS. Technical papers for all of the various bureaus, Medicine and Surgery, Ordnance, Yards and Docks, Supplies and Accounts—all of them. The advertising is in a manner perfunctory—required by law.

Mr. KELLEY. Is this the only fund out of which periodicals and newspapers can be purchased for the whole department?

Mr. CURTIS. There is a small fund for the library.

Mr. KELLEY. Then, this is the only money available?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. The item of newspapers does not mean the ordinary newspaper, does it?

Mr. CURTIS. No; not very many newspapers.

Mr. KELLEY. Mostly periodicals and technical publications?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. How much was this last year?

Mr. CURTIS. Mr. Reed tells me that we spent \$22,000 for the two items last year. For advertising up to December 31 we have spent \$1,000. For periodicals we have obligated \$12,000. For 1923 we have estimated \$18,000 instead of \$20,000 for the two items.

Admiral COONTZ. We gave that a straight reduction of 10 per cent for the coming year along the general line that we would not need it.

EST OF SUITS, COMMISSIONS, WARRANTS, DIPLOMAS, DISCHARGES, ETC.

Mr. KELLEY. The next item is copying, costs of suits, commissions, warrants, diplomas, and discharges; stationery and recording; reports, professional investigations, religious books; cost of special instruction at home.

Captain STEELE. The estimate for 1923 calls for \$147,000 under that subhead, of which \$117,000 is for the cost of special instruction at home to be expended under the postgraduate school of the Naval Academy. The remaining \$30,000 is for the other items under that head. The postgraduate school estimated \$143,000, which has now been reduced to \$117,000.

Mr. KELLEY. The bulk of the item is for the postgraduate school?

Captain STEELE. Yes, sir.

Mr. BYRNES. How is that school conducted? "Cost of instruction at home"—what do you mean by that?

Captain STEELE. That is differentiated from the cost of instruction abroad, which comes under Captain McNamee's office. These items go to the Naval Academy for one year and then go to various colleges, of which I have a list.

Mr. BYRNES. For postgraduate work?

Captain STEELE. Yes, sir.

Admiral COONTZ. I would like to state that out of the last 20 classes of the academy 11 of them were prematurely graduated and we feel that we should give these officers further instruction, not only in what was missed, but in the great advances being made all the time.

Mr. BYRNES. Do I understand that you send them to other educational institutions throughout the country?

Captain STEELE. Yes, sir.

Mr. BYRNES. Technical schools?

Captain STEELE. We have 22 at Columbia University, 6 at University of Chicago, 35 at the Massachusetts Institute of Technology, 4 at Harvard, 6 at the Van Rensselaer Institute, 3 at University of Michigan, 4 taking special courses, and 8 at the George Washington University. I also have what they are studying at

Mr. BYRNES. What are they studying at the George Washington University?

Captain STEELE. Law. They are assigned to duty in the office of the Judge Advocate General and are taking a course in law at George Washington University.

Secretary DENBY. In Michigan they study marine engineering.

Captain STEELE. Ordnance chemical engineering—that is, explosives.

Mr. BYRNES. A man graduates from the Naval Academy and send him to the University of Michigan to study ordnance?

Captain STEELE. Explosives; yes, sir.

Mr. KELLEY. Does this include any postgraduate instruction for doctors?

Captain STEELE. It does not.

Mr. KELLEY. Why does not the Staff Corps get any special instruction?

Captain STEELE. They get special instruction in the Naval Medical School in Washington, and occasionally an officer of the Medical Corps is sent to the Mayo Clinic in Minnesota.

Mr. KELLEY. What fund is that paid out of?

Captain STEELE. That is paid out of a fund controlled by medical and surgery.

COST OF SPECIAL INSTRUCTION ABROAD.

Mr. KELLEY. For cost of special instruction abroad you are as \$150,000?

Captain McNAMEE. Yes, sir.

Mr. KELLEY. What is this for?

Captain McNAMEE. The items under that are for maintenance of students and attachés, \$95,000; \$25,000 for office expenses, and \$30,000 for the confidential fund.

Mr. KELLEY. What is that first amount?

Captain McNAMEE. \$95,000 is for the maintenance of attachés.

Mr. KELLEY. And students. It is mostly attachés?

Captain McNAMEE. Yes, sir.

Mr. KELLEY. Will we have any students abroad?

Captain McNAMEE. We now have three students in Japan. They are language students, and we would like to have some money to send students to China.

Mr. KELLEY. The primary purpose in sending students abroad is to learn foreign languages?

Captain McNAMEE. Yes, sir. They are supposed to stay there three years, and then they become proficient in the language.

Secretary DENBY. Do they also study technical matters?

Captain McNAMEE. Incidentally, but they are there primarily to learn the language in order to fit themselves for their work as intelligence officers and as attachés abroad. It is essential that

en sent to those countries should know the languages of the countries to which they go. Otherwise, they will be very much handicapped.

Mr. KELLEY. How many people are in the Office of Naval Intelligence down there?

Captain McNAMEE. We have 9 officers, 23 clerks, and 3 messengers.

ICE WATER.

Mr. KELLEY. The next item is ice water.

Admiral POTTER. That is simply a question of what officers there are. In 1921 we spent \$86,521, and in the present fiscal year we are spending \$65,000, or that amount has been allotted, and it looks as though that would just about run us through. For 1923 we are asking \$60,000. Of course, if the activities are diminished, or if any yards and offices should be closed, this item could be cut down correspondingly.

Mr. KELLEY. Do they use all this ice water in the Navy Department?

Admiral POTTER. In the Navy Department and the Yards. It does not include the hospitals. We have actually diminished that expenditure. We have cut down the requisitions as they have come in, and have told them, "you can not have as much ice as you had last month." Even at Key West we have cut down on this item, and we received a vehement protest from the commandant at Key West, because they have hot weather there all the time.

TELEPHONE AND TELEGRAPH SERVICE.

Mr. KELLEY. For telephone, telegraph, and cable service you are asking how much?

Commander NOYES. We are asking \$300,000. We have for this year \$322,000, which you gentlemen have just increased in the deficiency bill from the original \$250,000. For 1921 we had \$554,000, in 1920 we had \$1,002,000; for 1919 we had \$1,439,000, and for 1918 we had \$903,000.

Mr. KELLEY. What did you have for 1916?

Commander NOYES. The figures that we have for 1916 are \$1,000,000, but this item was not carried in the same way then. In addition to that, telephone rentals and tolls have been increased practically 50 per cent since that time by public service commissions and telegraph rates have been correspondingly increased by the Postmaster General.

Mr. KELLEY. But you did not have any radio to speak of then. Now you are using four or five million dollars a year for radio service.

Commander NOYES. We went into that question in the other hearings, and Admiral Robison gave you the figures. We had radio service then.

Mr. KELLEY. But it was a very small amount compared with what we have now?

Mr. BYRNES. How much have you spent up to this time out of this year's appropriation?

Commander NOYES. We are spending at the rate of \$322,000. It has all been allotted.

Mr. BYRNES. You estimate \$300,000 for next year?

Commander NOYES. Yes, sir; which will be a further reduction of \$22,000 from this year.

Mr. KELLEY. Why do you not use radio more?

Commander NOYES. We are using it all we can. There is no further reduction that we can make on that account. We never use wires where we can use radio; but, of course, it is becoming more difficult to use radio, due to increased use by commercial and private interests.

Mr. KELLEY. How much of this is for telephone service, how much for telegrams, and how much for cablegrams?

Estimate for 1923.

Telephone:	
Rentals	\$140,949.2
Local calls	38,383.2
Long-distance calls	22,005.2
Telegraph	100,355.5
Total	302,263.5

TELEPHONE RENTALS.

Commander NOYES. \$140,000 is for telephone rentals. That includes the rental of all telephone plants in all the naval establishments. Of course, we have none on board ships, but all of this is on shore. It includes the rental of wires.

Mr. KELLEY. How much do you estimate for the rental of wires?

Commander NOYES. \$48,000 for telegraph and telephone wires.

Mr. KELLEY. Could we not cancel the leases on those wires now and get along with that much less telephone and telegraph service?

Commander NOYES. Apparently not. The Secretary has made every effort to reduce the amount of dispatch work and the use of telegrams.

Mr. KELLEY. I think we might get rid of these special wires, now that the war is over.

Secretary DENBY. Can you tell how much these special wires are used?

Commander NOYES. Yes, sir.

Mr. KELLEY. I have no doubt they are used very extensively, and will be so long as it does not cost any more. It does not make any difference whether you send 500 telegrams or 1,000, because the cost would be the same on the leased wires.

Commander NOYES. Yes, sir.

Mr. KELLEY. Therefore the officers will use those wires very extensively instead of the mails.

Secretary DENBY. We have a very stringent order about that.

Mr. KELLEY. Where they have leased wires it does not make any difference how many telegrams they send, because the cost is no more.

Commander NOYES. It is not a matter of general knowledge in the Navy Department, and we do not intend that it shall be a matter of general knowledge, where the leased wires are, and each bureau and office is debited on a monthly report with the same amount for

dispatch service charges furnished by the naval communications service when they use the leased wire as when they use other wires. The charge against them over the leased wire is the same as over the commercial lines.

Mr. KELLEY. Do you think they are as economical in the use of the wires as they would be if you did not have these leased wires?

Commander NOYES. Yes, sir. We have reached the point in cutting down now where several instances of loss have occurred. For instance, by using a letter instead of a telegram in the acceptance of a bid several thousand dollars has been wasted because the letter was too late to catch the market on the bid.

Mr. BYRNES. That would be unwise economy, but I have no doubt that you use the service in other places where it could be dispensed with.

Commander NOYES. We have made every effort to cut it down. There have been several examples of loss due to too great reductions. Another case was in connection with the renting of a recruiting office, and there we could have saved several thousand dollars in the way of cheaper rents, but because of handling the matter by letter was impossible to close the lease.

Admiral COONTZ. I went into this matter very thoroughly as budget officer to see if it could be cut down further. We finally came to the conclusion that while there might be a few more messages sent over these wires, but not very many more, there was a great military advantage gained by being able to talk to Norfolk every day promptly when the occasion arose, and in that way to settle big questions without loss of time. In view of all the circumstances, we brought this down as low as we could. When you take into consideration the fact that they have come down from over 1,000,000 to \$300,000, I think you will agree that this is a pretty low figure.

Mr. OLIVER. I do not think they should be required to cut to the extent of losing money on account of bids where a prompt acceptance should be made.

Commander NOYES. That is evidence of the fact that the cuts have been too drastic.

Mr. KELLEY. Will the telephone and telegraph service be increased or diminished by reason of the division of the fleet?

Commander NOYES. Will it be increased through the division of the fleet?

Mr. KELLEY. I mean when the bulk of the fleet will be in the Pacific?

Commander NOYES. It must increase it.

Mr. KELLEY. Where are the leased wires?

Commander NOYES. There is one from Norfolk to Washington, and one from Washington to Boston and Portsmouth via Philadelphia, New York, New London, and Newport.

CLERICAL, INSPECTION, AND MESSENGER SERVICE.

Mr. KELLEY. For clerical labor charged on rolls you have \$700,000?

Mr. CURTIS. That was \$750,000 for this year.

Mr. KELLEY. What is that for?

Mr. CURTIS. That is for clerical service all over the world and in the navy yards. We have furnished the committee with a detailed statement showing how it is divided up in every way.

Mr. KELLEY. This includes your clerical help in the commandants' offices?

Mr. CURTIS. No, sir; that is in the yards, labor boards, inspection boards, the general board, communication offices, and district offices.

Mr. KELLEY. This includes all the clerical help in the commandants' offices at the yards and stations, and all the clerical help for the different boards that are operating for the Navy?

Mr. CURTIS. Yes, sir. All under "Pay, miscellaneous."

Mr. KELLEY. Is that all it includes?

Mr. CURTIS. Yes, sir.

Mr. KELLEY. It does not include any inspection service, drafting service, or civilian employees, laborers on grounds, or anything of that kind, but it is just for the office help in the commandants' offices and clerks for the various boards?

Mr. CURTIS. Yes, sir. Last year we spent \$990,000 for that purpose, and this year we have \$750,000. We will use most of it up this year.

Mr. BYRNES. How much will you use this year?

Mr. CURTIS. About \$600,000. The total pay based on a 6-day week would be \$706,000 at the navy yards. We have reduced this to a 5-day week, and cut down the expenditure to about \$643,000.

Mr. BYRNES. Why do you ask \$700,000 for next year?

Mr. CURTIS. We hope to get back to the 6-day week. This 5-day week is bad business, but we were forced to do that on account of the great reduction.

Mr. KELLEY. You would not have so many clerks if you did that.

Mr. BYRNES. You would have fewer clerks and would do more work.

Mr. KELLEY. If you worked six days a week, you would not want as many clerks as you would when working five days a week.

Mr. CURTIS. The trouble about the 5-day week is that it cuts the pay down to such an extent that a great many of the good clerks try to get out into other employments.

Mr. BYRNES. And the clerk who is satisfied with less compensation for a fewer days work will stay and loaf?

Admiral COONTZ. A certain number of them have worked six days a week, just as they do here at Washington?

Mr. CURTIS. Yes, sir.

Admiral COONTZ. This amount involves a 6-day week for all the boards, offices, and outlying stations, including Pearl Harbor, and five and a half days for other establishments, and a 6-day week for telephone and telegraph operators. That brought this amount to \$706,822, but we hope to get by with \$700,000. We are using for this purpose \$769,000 this year.

Mr. CURTIS. That is what we paid out last year.

Mr. KELLEY. This year it will cost how much?

Mr. CURTIS. \$643,000.

Mr. KELLEY. You want to increase it for next year. I thought you were coming down.

Mr. CURTIS. That \$643,000 is on account of the 5-day week.

Mr. REED. If the commandants' offices are going on a 6-day week it would increase the volume of work more and more in some other activities, where the output is dependent altogether upon the activity of the commandants' offices.

Mr. KELLEY. There will not be any great activities at the navy yards, and I think it is pretty nearly time that everybody stopped off pedaling on the question of what the yards will do. Everybody had as well understand that when we scrap 15 or sixteen of the breadnaughts and then discontinue work on the new construction that is now going on, the navy yards can not go forward employing the same number of men and the same number of clerks that they have had heretofore. You can use plain common intelligence on that proposition, because, otherwise, we will be making trouble for ourselves. We have had delegations down here from nearly all of those towns, and we are simply pushing the thing along in front of us, while one good, swift kick would end it.

Commander HILL. If that cut should be made, it would not cut the whole \$700,000. It would only cut the part that is in the navy yards, which is only, roughly, \$210,000.

Mr. KELLEY. Some of this is outside of the navy yards. How about these 25 at the first naval district? Will you need them next year?

Commander HILL. The districts will require a total of about 227,000. We made a very careful analysis of the districts where all of that money goes. That is not district work, but it is headquarters work. It is mostly work at the district headquarters for the reserve forces, which are grouped geographically.

Mr. KELLEY. In the commandant's office in Boston you have 7 and in the district headquarters you have 25.

Commander HILL. Yes, sir; those 25 are doing reserve force work.

Mr. KELLEY. The whole district business there is in the Boston yard, is it not?

Commander HILL. Yes, sir; it is all in the Boston yard.

Mr. KELLEY. It seems to me that 25 people outside of the yard, with only 7 people required in the yard to do the clerical work, is unreasonable.

Commander HILL. They are all in the yard.

Mr. KELLEY. Nearly all of those little activities that you had during the war on a large scale in that district are shut down now.

Commander HILL. Except the reservists. We have to have the reservists' organization.

Mr. KELLEY. Of course, you have got to keep the records for the reservists' business.

Admiral COONTZ. Those 25 people are keeping thousands of records, and if you could see what they came down from.

Mr. KELLEY. Of course, we were coming down from a war basis.

Admiral COONTZ. Oh, yes; we first came down to \$1,000,000, and now we are trying to jump down to \$700,000.

Mr. KELLEY. But you are going up again this year.

Commander HILL. This part of the item is coming down, sir.

Mr. KELLEY. The expenses this year are less than you are asking for next year.

Commander HILL. But this part of the item is coming down. There is one thing I would like to bring to your attention, and that is that the Naval Reserve clerical force was cut down to such an extent that they have fallen very greatly behind, and just two or three days ago I asked the Naval Reserve section in Navigation to make an estimate, in case we found we had any money available in

this appropriation this year, as to whether or not we could allot a certain amount to those districts and get them cleaned up and brought up to date on their records, and the officer in charge said that if he could get during May and June a total of 292 clerks for \$55,000, on the 1st of July he could start out with a clean sheet and be up to date, and then for next year he could show a very great reduction.

Mr. KELLEY. So much of this Naval Reserve information is useful for a day, a week, or a month, and then it is gone. If you are going to reorganize your Naval Reserve and build it up in another way you will have to start at the bottom again, will you not, Admiral?

Admiral COONTZ. Except for this, that we know we are going to pay Civil War pensions up to 2002 and a part of that is because we did not have good records during Civil War times, while these records, with all the care we have put on them to keep them straight, are going to be of vast use to the Government in the course of time, and we will not have any private pension bills, and things like that, because we did not have the records.

Mr. KELLEY. In the third naval district you have 58 people in the district communication superintendent's office. What are they doing?

Commander NOYES. They are telegraph and telephone operators and a few clerks.

Mr. KELLEY. That is a new title. What does it mean?

Commander NOYES. He is the aid to the commandant of the district in charge of communications in the whole district.

Mr. KELLEY. Then the district commandant has 32 people in the Naval Reserve section, 23 people in his office and these 58 besides, making 120 people in the district headquarters in New York.

Commander NOYES. The 58—this has been reduced to 52—are telephone and telegraph operators in the third district, and that includes all the activities in the third naval district from New London to—

Mr. KELLEY (interposing). There are only 14 people in the commandant's office in New York. What are these people doing under the district communication superintendent?

Commander NOYES. They are telegraph and telephone operators.

Mr. KELLEY. For whom and for what?

Commander NOYES. For the New York yard, mostly for the New York yard, for the fleet-supply base—

Admiral COONTZ (interposing). Do you have radio compass people among your 58 scattered at numerous places?

Commander NOYES. I say, these 58 include all the personnel in the third naval district, telephone and telegraph operators and clerks.

Admiral COONTZ. Tell Mr. Kelley where they are located.

Commander NOYES. I can put the exact positions in the record.

Analysis of communication personnel, third district.

	Clerical.	Tele- phone.	Tele- graph.	Total
District headquarters.....	18	9	11	38
Navy yard, New York.....		9	2	11
Submarine base, New London.....		2		2
Medical supply depot, Brooklyn.....		1		1
	18	21	13	52

Mr. KELLEY. They are all in the office in that building, are they not?

Commander NOYES. No, sir; this includes the whole third naval district.

Mr. BYRNES. You said they were located from New London to where—to New York City?

Commander NOYES. Yes, sir.

Mr. BYRNES. What places are in the district besides New London that are in operation and where these clerks are located?

Commander NOYES. They are clerks and telegraph and telephone operators at New London, at New York, the medical supply depot, the district headquarters, and the navy yard. I think those are the principal points. If there are any others I can give them to you.

Mr. KELLEY. How many telegraph operators have you in the Navy Department?

Commander NOYES. Fifteen.

Mr. KELLEY. How many of these 58 are telegraph operators?

Commander NOYES. Of the 58 in the third district?

Mr. KELLEY. Yes.

Commander NOYES. I should say 10.

Mr. KELLEY. And the rest are telephone operators?

Commander NOYES. I would rather put that in the record; I am not certain as to the exact proportion. (See statement above.)

Mr. KELLEY. How many enlisted men have you under the district commandant in New York?

Commander NOYES. In the entire third district there are 70.

Mr. KELLEY. Clerks?

Commander NOYES. No, sir; I thought you said enlisted men.

Mr. KELLEY. I meant enlisted men acting as clerks.

Commander NOYES. None as far as I know.

Mr. KELLEY. What are they doing?

Commander NOYES. They are radio operators in the third naval district.

Mr. KELLEY. Have you no enlisted men acting as clerks in the third naval district?

Commander NOYES. No, sir; not as far as communications are concerned.

Admiral COONTZ. There is your complete list.

Commander NOYES. There are 21 telephone operators and 13 telegraphers in the third naval district.

Mr. KELLEY. What are the rest of them doing; are they clerks?

Commander NOYES. There are 21 telephone operators—they are put down separately—13 telegraphers and 18 clerks, making 52.

Mr. KELLEY. The chief business they have to transact is with the New York yard and Washington, is it not? Suppose you want to call up the New York yard? Do you call up these headquarters first, and then they give you a call over there?

Commander NOYES. Yes, sir.

Mr. KELLEY. Is not the chief business of the Navy Department here with the New York yard?

Commander NOYES. We have a leased wire, too, which runs to the district headquarters, and from there they communicate with the yard.

Mr. KELLEY. But most of the business goes to the yard, does it not? These other activities around about are war activities which have very largely gone out of existence!

Commander NOYES. No, sir. The fleet supply base is—

Mr. KELLEY (interposing). The fleet supply base is quite a large depot!

Admiral POTTER. Yes, sir; we have many millions of dollars worth of materials there.

Mr. BYRNES. I do not see why you need 10 or 12 telegraph operators at that place, unless you have a tremendous amount of business.

Commander NOYES. That includes the yard and the district headquarters.

Admiral COONTZ. They have a very large amount of business to transact there, because that is the center from which they radiate to the navy yard, to the naval hospital, to the fleet-supply base, to the ammunition depot, also to New London, Newport, and the various coastal stations all the way from Cape Cod to the center of New Jersey. That is true, is it not?

Commander NOYES. Yes, sir.

Admiral COONTZ. They have there radio stations, radio compass stations, and everything of that character, so that it is a very busy place.

Comparative statement of entire communication service, civil field personnel included in this appropriation.

	Fiscal year 1921.		Fiscal year 1922.	
	Number.	Amount.	Number.	Amount.
Clerical.....	57	\$74,306.00	51	\$69,484.00
Tel. phone.....	107	124,588.00	109	125,046.35
Telegraph.....	36	64,800.00	38	51,011.22
Total.....		263,694.00		245,541.57
Net saving 1922.....		18,131.92		

Mr. BYRNES. You have here in the department how many—10?

Commander NOYES. Telegraph operators?

Mr. BYRNES. Yes.

Commander NOYES. Fifteen.

Mr. BYRNES. And in this one district you have 12?

Commander NOYES. Yes, sir.

Mr. BYRNES. You have almost as many as you have here, and I assume the department has more business than that one district has.

Admiral COONTZ. You must remember that is a great distributing center, and they are very busy people.

Mr. KELLEY. I have never been quite able to get away from the belief that if you would put this whole thing over in the navy yard you could eliminate quite a bit of this telegraphing. Of course, I know you hold a different opinion.

Admiral COONTZ. We will do it in two minutes if we can get in the navy yard, but we just have not the space. New York City has given us thousands of dollars worth of free rent; we have that immense

y building, or such portion of it as we need, right in the center of ything, and we get it free.

Mr. KELLEY. But it costs quite a lot to keep it up, because heat, t, and everything else is required.

Admiral COONTZ. I do not think it costs a great deal.

Mr. KELLEY. If your business should drop down in the New York d and you could find a place big enough for the commandant of district, it seems to me it would be a good thing to move all your vities there.

Admiral COONTZ. There is no question about it at all, if the business ps down. In the case of Boston we were able to move in the yard,

the commandant has both headquarters within 300 or 400 feet.

Mr. KELLEY. It looks to me as though you were maintaining an e there simply for the purpose of conveying to the navy yard most he information that comes to it.

Admiral COONTZ. But here is the other side of it: Suppose we ed into the navy yard; you must still talk to your naval hospital, our ammunition depot, your fleet supply base, etc.

Mr. KELLEY. They are not so extensive now, because they kind of le down in peace times.

Admiral COONTZ. The hospital does not settle down very much, use we fill it with crippled soldiers, and your other stations all ain the same. We would like to move into the New York Navy d, but there is no space for us, and until that time comes and as r as we can hold the ferry building free, we are lucky people. ny event, all of these people would have to be moved right into yard just the same.

Mr. KELLEY. At the Philadelphia yard, the fourth naval district, e are 15 employees in the communication superintendent's office.

aid for personnel in that office has 11 employees.

Admiral COONTZ. There is a sample of concentration. The com- dant of the navy yard at Philadelphia is the commandant of : district, and his aid for personnel runs all the reservists within : big district, and his communications, I suppose, are right close is office.

Mr. KELLEY. He has 40 people altogether?

Admiral COONTZ. Yes, sir; that includes the board of labor, the sec- ry of the third civil service district, the commandant's office per, and so on.

Mr. KELLEY. At New York you have about 150?

Admiral COONTZ. Yes, sir. That is the comparative ratio between business done in those two districts.

Mr. KELLEY. At Hampton Roads, where you have a large part of fleet, the operating base, the training school, the navy yard and ything, you have 17 people only, 7 in the district communication e.

Commander HILL. One answer to that is that the third naval dis- : has 31 people for reservists; they have the biggest reserve nization in the country; Philadelphia only has three and Hamp- Roads has one clerk on this duty.

Admiral COONTZ. New York is very active along naval reserve lines use of the naval militia.

Mr. KELLEY. The naval district at San Francisco is consolidated i the yard, is it not?

Admiral COONTZ. No, sir.

Mr. KELLEY. The commandant has his office in San Francisco?

Admiral COONTZ. Yes; and also in free quarters.

Mr. KELLEY. Of course, I can see that there might be some possible need for a separate organization there on account of so many ships coming in to that point that do not go up to the yard.

Admiral COONTZ. He is also commandant of the training station on Goat Island, and we find that by handling people who pass through there it saves a good deal when they do not have to go up to Mare Islands to attend to whatever they have to do.

Mr. OLIVER. What vessels are assigned to the commandant of the district?

Admiral COONTZ. The commandant of the twelfth district?

Mr. OLIVER. Yes.

Admiral COONTZ. He has in that district the same as at Hampton Roads and New York, what we call a pool. That is, they would all be under his jurisdiction, the tugs, the lighters, the self-propelled oilers, and so on, and when a call comes he assigns the vessels to them. It is possible he has two or three little tugs; he certainly has a little ferry boat running from Goat Island to San Francisco, and I think he has a small craft that runs to Mare Island, to Goat Island, or wherever he needs it to go.

Mr. OLIVER. He does not have a large vessel devoted entirely to his own use?

Admiral COONTZ. No, sir.

Mr. OLIVER. In other words, his duties are assumed to be performed on shore and not afloat?

Admiral COONTZ. Practically all on shore; he is the commandant of the training station and the commandant of the district, too.

Mr. KELLEY. Expenses of naval districts?

Commander HILL. The estimated expenditures in 1921 for the expenses of naval districts were \$50,000; they were lumped under some other subhead in 1921; in 1922 there was an allotment made of \$60,000 to cover that.

Mr. KELLEY. Are these little odds and ends, such as stationery, postage, and so on?

Commander HILL. Yes; they are little odds and ends. So much a month is allotted to the district headquarters. This item also covers costs of certain minor repairs. For instance, when we took over the ferry building in New York about \$6,000 had to be spent on it in the way of repairs and fitting up the third floor; and when we had done that we were able to take in a number of offices scattered around New York, so that we saved about \$8,000 in yearly rentals by spending \$6,000 in repairs. This item covers little odds and ends, as you suggest.

TRANSPORTATION OF DEPENDENTS OF OFFICERS.

Mr. KELLEY. "Transportation of dependents of officers." How is this running along now?

Captain STEELE. There was spent, in 1921, \$134,000 under this item. It is estimated that the current appropriation has been exhausted, and we have stopped the transportation of dependents in order of the department. This estimate calls for \$120,000, which may be sufficient if we do not order officers around; they go together.

Admiral COONTZ. We are taking all we can by sea.

Mr. KELLEY. I suppose it is your policy, when you order an officer on certain duty and he has a family to take with him, to take that into account and take them by sea?

Secretary DENBY. We try to do so.

CLAIMS FOR DAMAGES.

Mr. KELLEY. Claims for damages? Are these the little \$500 claims which you are allowed to settle?

Admiral LATIMER. Yes, sir; they are for damages not exceeding \$100.

Mr. KELLEY. There are 20 of them this year.

Admiral LATIMER. We have spent thus far this year about \$1,500; but we have a large number of claims pending, and we do not know how many we will settle between now and the 1st of July.

Mr. KELLEY. But you think you might settle 20 next year at the outside figure of \$500?

Admiral LATIMER. Yes, sir; we have put it at that amount from the experience we have had in past years.

BOARD OF INSPECTION AND EXAMINING BOARDS.

Mr. KELLEY. Board of inspection and examining boards, and so on, \$10,000.

Mr. CURTIS. Originally we had an allotment of \$65,000, but we have cut the amount to \$35,000.

Mr. KELLEY. Are these traveling expenses?

Mr. CURTIS. No, sir; they are the miscellaneous items necessary for the board of inspection and the examining boards. Up to January 31 we had only spent \$7,000, and we have put in an estimate for next year of \$20,000.

Admiral COONTZ. We cut that large sum down to \$20,000 for next year.

Mr. KELLEY. That finishes pay, miscellaneous, does it not?

Admiral POTTER. Yes, sir.

CIVILIAN NAVAL CONSULTING BOARD.

Mr. KELLEY. The next item is for the civilian naval consulting board.

Admiral COONTZ. We have reduced that to \$4,000; it was \$15,000, then \$5,000, and then \$4,000.

Mr. KELLEY. Is this the Edison board?

Admiral COONTZ. Yes, sir. The Secretary did not deem it advisable to entirely cut it out, so we just simply made a straight 20 per cent cut and reduced it to that low figure.

Mr. KELLEY. Is Mr. Edison still on the board?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Last year you only spent \$1,875.

Admiral COONTZ. Yes, sir; and we may not spend any more this year, but something might come up and we would require this amount.

TUESDAY, MARCH 21, 1922

FOR EMERGENCY AND EXTRAORDINARY EXPENSES.

STATEMENT OF REAR ADMIRAL DAVID POTTER, CHIEF OF BUREAU OF SUPPLIES AND ACCOUNTS.

Mr. KELLEY. We have with us this afternoon Admiral Potter, Chief of the Bureau of Supplies and Accounts, and the first item we will take up with him is contingent, Navy.

Admiral POTTER. For 1923 the estimated amount is \$45,000. It may be of interest to you to refer to 1921. In 1921 the amount finally appropriated for contingent, Navy, was \$75,000; of that the net expenditure was \$60,740.23, so that there was an unobligated balance in the fiscal year 1921 of \$14,259.77. Referring to the current year, the fiscal year 1922, the total amount thus far allotted for expenditure is \$34,498, leaving available to-day for allotment \$15,502 out of a total appropriated for 1922 of \$50,000. In respect to 1921 I have the items for which the money was spent, both the names of the items and the amounts, and for 1922 I have the names of the items and the amounts allotted.

Mr. KELLEY. Is this fund allotted to the different bureaus?

Admiral POTTER. No, sir; each item must secure the direct approval of the Secretary of the Navy as it comes up. I can give you quite a number of these things if they would be interesting.

Mr. KELLEY. Have you a list of the allotments made this year?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Is it a long list?

Admiral POTTER. Yes, sir; there are 74 different items. I can read some samples and put them in the hearing.

Mr. KELLEY. Make a short statement for the record of just what they are.

Admiral POTTER. Very well, sir.

Mr. KELLEY. This is a fund that is under the direct supervision of the Secretary?

Admiral POTTER. Yes, sir; and it is for all sorts of expenses. Naval Academy rifle team, \$1,075; flagship *Pittsburgh*, European station entertainments, \$4,000.

Mr. KELLEY. If there are some official functions in which the ships of the nations or officers must participate the Secretary in his discretion can make an allotment?

Admiral POTTER. Yes, sir.

MEMORANDUM RELATIVE TO APPROPRIATION "CONTINGENT, NAVY."

1. The appropriation "Contingent Navy" is largely used for purposes of official entertaining by commanders in chief and commanding officers of vessels of the Navy abroad and in certain cases for entertainment of distinguished foreigners and others in the United States. It is also used for certain emergency expenses which arise from time to time and can not be charged to other appropriations. It is expendable only after approval by the Secretary of the Navy. The general nature of the purposes for which the appropriation is used is indicated by the following statement of authorizations already made for the fiscal year 1922, many of the allotments covering expenses which have been incurred from time to time for entertaining during the whole of the year:

Special entertaining-----	\$27, 048. 85
Unusual expenses in connection with air flights-----	785. 52
Expenses in connection with ceremonial funerals-----	300. 00
Entertaining expenses in connection with launching of naval vessels-----	418. 00
Expenses of the Naval Academy rifle and football teams-----	1, 640. 00
Expenses of Congressional parties in connection with visits to navy yards and stations-----	154. 09
Sermons and addresses on religious subjects at the Naval Academy-----	3, 000. 00
Miscellaneous-----	1, 172. 11
Total allotments to date-----	34, 498. 57

TUESDAY, MARCH 21, 1922.

TEMPORARY GOVERNMENT FOR WEST INDIAN ISLANDS.

STATEMENT OF ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS.

1923 ESTIMATES.

Mr. KELLEY. For the temporary government of the West Indian Islands you had \$343,440 in 1922 and you ask \$250,000 for 1923?

Admiral COONTZ. The temporary government of the West Indian Islands is under the Navy Department and we have to pay all the expenses. I suppose it costs us annually over half a million dollars in all lines of expense. The appropriation last year was \$343,440 and for this year the Governor asked \$384,000 and made a most strenuous plea for that amount, stating that that much was necessary to carry out everything in proper shape. The bill which was passed last year, authorizing the proceeds of the income tax to come into the island treasury, will not give them enough. In our desire to economize, and before we had full returns from the Governor, we made a flat cut to \$250,000. I have some letters in regard to this matter, but as I came here in a hurry this afternoon I did not bring them with me, and if this can go over until to-morrow morning I would like to read those letters to the committee. I also know that Judge Towner, chairman of the Committee on Insular Affairs, is specially interested in this matter. As I say, we made a flat cut to \$250,000 just because we were cutting everybody right down the line.

Mr. KELLEY. You have not the Governor's letter with you?

Admiral COONTZ. No, sir; I did not know I was coming up this afternoon.

Colonel ROOSEVELT. This is one of the appropriations we have spoken about as really not belonging to the Navy Department.

Secretary DENBY. But we govern the islands and must pay the expenses.

Mr. KELLEY. Do you recall just what you do with this money?

Admiral COONTZ. There are a number of projects, but I would rather have you let this go until to-morrow morning, when I can read you a couple of pages from the Governor's letter. It is a very long letter, and I suspect Judge Towner would like to appear on this subject.

Mr. KELLEY. I presume it would be well to have a sort of résumé of your expenditures there, so we had better pass this until tomorrow morning, and Judge Towner may want to make a statement at this point.

STATE MARINE SCHOOLS.

Mr. KELLEY. The next item is for State marine schools. Tell us about that item.

Admiral COONTZ. Under the law the States may carry on these State marine schools and receive an amount, equal to their own appropriations, from the Federal Government up to \$25,000. At the present time there are only three States running marine schools—New York, Pennsylvania, and Massachusetts—the others having fallen out. The result is there are only three left and the annual appropriation is \$75,000.

Mr. KELLEY. And those three have made an expenditure to the amount of \$25,000?

Admiral COONTZ. They have or will, otherwise they will not draw this amount from the Treasury. They must prove to the satisfaction of the Secretary that they have done so.

Mr. KELLEY. This is in the nature of a reimbursement for last year?

Admiral COONTZ. Yes, sir; at the end of this fiscal year it will be a reimbursement—that is, they get no money until they prove they have spent the money.

Mr. KELLEY. Is the \$75,000 we are appropriating here in the nature of a reimbursement for this current year?

Admiral COONTZ. For the current year; yes, sir.

Mr. KELLEY. And unless they have maintained the schools and expended these sums of \$25,000 each, they will not be entitled to the \$75,000?

Admiral COONTZ. Unless they have spent an equal amount or an amount in excess of it.

Mr. KELLEY. And it is your understanding that these three States are carrying on this work?

Admiral COONTZ. I know they are.

Mr. OLIVER. Do you require them to spend any sum over and above that in order to secure it?

Admiral COONTZ. They have to spend at least that amount in order to get the \$25,000 from the Federal Government, but they may spend more.

Mr. OLIVER. In other words, if they only spend \$25,000 they would not be entitled to get it back?

Admiral COONTZ. They would be entitled to get it all back.

Mr. OLIVER. You do not pay them until they have spent \$25,000?

Admiral COONTZ. We pay them a sum equal to their expenditures, not to exceed \$25,000.

Mr. OLIVER. I thought perhaps it might be on a cooperative basis and where they were expending \$25,000 we permitted them to spend \$25,000 in addition.

Admiral COONTZ. No, sir.

Mr. OLIVER. Do I understand that if they collect this \$25,000 from the Government they can reimburse themselves for what they have expended?

Admiral COONTZ. If they spend any money on the school the Federal Government will reimburse them up to \$25,000.

Mr. OLIVER. But suppose they have only spent \$25,000?

Admiral COONTZ. The Federal Government will reimburse them \$25,000.

Mr. OLIVER. You understand the purpose of the question?

Admiral COONTZ. Yes.

Mr. OLIVER. Because if they spent only \$25,000 and they got \$25,000 from the Federal Government, we would be maintaining the whole school.

Admiral COONTZ. The law on this subject is as follows:

NAUTICAL SCHOOLS—APPROPRIATIONS AUTHORIZED.

Sum not exceeding the amount annually appropriated by any State or municipality for the purpose of maintaining such a marine school or schools, the nautical branch thereof, is hereby authorized to be appropriated for the purpose of aiding in the maintenance and support of such school or schools: *Provided, however,* That appropriations shall be made for one school in any territory heretofore named in section 1, and that the appropriation for any one year shall not exceed \$25,000 for any one school. (Mar. 4, 1911, c. 265, sec. 2; 36 Stat., 1353.)

CARE OF LEPERS, ETC., ISLAND OF GUAM.

Mr. KELLEY. The next item is for the care of lepers, island of Guam.

Admiral COONTZ. The island of Guam being under Federal and naval jurisdiction, the Navy Department has entire and complete control. There are no civilian doctors on the island of Guam and the naval surgeons take care of the population of about 15,000. There have been, and still are, found lepers there whom we look out for, and they have a terrible disease known as gangosa, which starts at the roof of the mouth and gradually eats the face up. There are but 334 gangosa cases left, and the new cases have been few, because we have been able to cure many of them. Gangosa is supposed to be a mixture of yaws and syphilis, and when they get to a certain stage we have to take care of them and look out for them. Then there is a good deal of tuberculosis there; but this money looks out for the lepers and these other people to a great extent. There is a leper out there which was started by Mrs. Russell Sage; the principal cost cannot be touched, but the interest helps out, so that this year, in line of economy, we have reduced that 10 per cent and asked for \$10,000. It is an appropriation of many years standing, and it is the most necessary thing for those poor people, as they have no money.

WEDNESDAY, MARCH 22, 1922.

INFORMATION CONCERNING TEMPORARY GOVERNMENT FOR WEST INDIAN ISLANDS.

STATEMENT OF HON. HORACE M. TOWNER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA.

Mr. KELLEY. Judge Towner, the chairman of the Committee on Insular Affairs, has a great deal of valuable information about the Virgin Islands. I asked him if he would be kind enough to appear

before the committee when this item was reached, and he has kindly consented to do so. Judge Towner, we will be glad to hear you.

Mr. TOWNER. Mr. Chairman, the principal object that I have in appearing before the committee is to prevent, if I can, a reduction of these estimates or, at least, to lay before the committee some reasons, if I can, which would prevent a reduction of the Budget estimates. Of course, it is natural that this estimate of appropriation for the Virgin Islands should be cut, just the same as other expenditures have been cut or just the same as the other expenditures constituting the naval budget have been cut, but, as all of you understand, this is not a part of the Naval Establishment. The government down there is purely a civil government, and, very fortunately for us, we have as officials and executives of the government officers from the Navy Department. It would cost the Treasury of the United States a very much larger sum to maintain a civil government down there if it were provided for in any other way. The estimate sent by the Governor of the Virgin Islands was for \$384,500. This was cut by the Budget Bureau to \$250,000. The current appropriation is \$343,440. The Budget reduction on the estimate is \$134,500, and the Budget cut on the current expenditures represents a reduction of \$93,440. Now, it is my judgment that the estimate made by the governor of the islands should be allowed, but, in any event, I am very sure that the present appropriation for the current year should not be reduced. In fact, it can not be reduced, I think, without very great and serious impairment of the service.

Mr. KELLEY. Have you a distribution of the sum by purposes?

Mr. TOWNER. Yes, sir.

Mr. KELLEY. I wish you would run over the estimates before you get through.

Mr. TOWNER. I have received from Admiral Kittelle a very full statement regarding the conditions there and regarding what has already been accomplished, and I would like to read that statement for the record.

I think I told your committee, Mr. Chairman, a year ago that the record the Navy had made in the Virgin Islands was one of great credit to the department and to the credit of the Government of the United States. In fact, it was a godsend to the people of that country when the supervision and discharge of the duties connected with the government of those islands were committed to the Navy Department. I can not express too highly my estimate of the splendid service that has been rendered down there by the Navy. It was an extremely difficult situation and they made a splendid record.

I want to read, if I may, this statement I obtained from the governor, and if at any time during the progress of the reading you desire to ask me any questions do not hesitate to do so. Mr. Secretary, if you desire at any time to ask any questions please do not hesitate to do so.

The governor stated:

As you are aware, nothing was done for the Virgin Islands until your commission visited the islands in January, 1920, and then, after your report was made to Congress, a full year elapsed without any marked movement toward carrying out the wise recommendations made by you.

Mr. KELLEY. This is a letter from the naval officer in charge there, addressed to you?

. TOWNER. Yes, sir; it is from Rear Admiral Kittelle, who is governor of the islands. I might explain that a joint commission was appointed, consisting of three Members of the Senate and Members of the House, and the commission visited the islands and hearings in the islands and covered the general situation

a governor's statement continues:

soon as possible after my inauguration as governor I set about the work trying out the wishes of Congress as voiced in the adopted report of your session, and in the six months that have elapsed the following has been accomplished:

inclusion by Congress of the Federal income tax laws to the islands.

that provision extends our income tax laws to the islands, but it is the money to be covered into their own treasury. This year it will be of material assistance to them.

prohibition by Congress of aliens from holding public office.
provision for parity of island currency.

the exchange situation when we had these hearings was very favorable. There was no real reason for the existence of that condition, but the financial powers in the islands and bankers of the United States arranged it so that there was a difference in the exchange rate between Denmark and the United States. That, of course, was an absurd arrangement, because the deposits were here. We went after that situation very vigorously, and with cooperation of the Governor and the Federal authorities here, secured the abolishment of that rate of exchange, which was of benefit to the people of the islands.

establishment of a department of public welfare.
founded and opened the first senior high school.

when we went there they had no high school, or they had practically none. I think there was something that they called a high school, but they had no graded system. Since then there has been established an almost perfect graded system, corresponding to our standard system of public schools in the United States.

lightened out difficulties in the judiciary and obtained passage of colonial law providing only one district judge.

recommended the appointment of two district judges, but it was found upon trial that the entire business of the court could be handled by one judge, which was a manifest saving. We owe that solely to the recommendation of the Governor—that is, the abolishment of two judges and the adoption of the one judge system.

improved the condition of the poorhouse.
provided modern treatments for leper colony.
installed sewer system, salt water fire main system, and sanitary public water system.

as I may not understand, but it is, nevertheless, a fact that there is nothing modern in the way of health protection in the islands when we went in there. All of that has been created since.

improved and improved roads and streets.
plans for water supply at St. Thomas, Christiansted, and Frederiksted
colonial councils.

Prepared local tax laws to replace archaic Danish, and laid same before colonial councils.

Prepared scheme for renaming streets and laid same before colonial council.

Brought before colonial councils necessity for providing public bathing facilities.

Made improvements on public school buildings.

Had passed automobile traffic laws.

Made extensive improvements in the three public libraries.

Encouraged Red Cross to examine all school children and all physical defects thus discovered have been properly treated.

Put into effect new code of laws for St. Thomas and St. Johns.

That is, after all, the most considerable accomplishment that they have made down there in the islands. I think you will remember that I told you, a year ago, that we hoped to have those codes adopted, and they have been adopted now, so that all we lack is a taxing system in the islands. A taxing system has been proposed before the councils, but it has been opposed by the property interests of the islands. The principal property owners in the islands are Danish, English, and Americans, and a great many of them are non-residents of the islands. They have secured the adoption of these laws with remarkable celerity, and I think with a remarkably fine effect; but I have no doubt that something will have to be done with regard to the taxing system.

Mr. OLIVER. I suppose your committee has pretty well evolved the basic principles on which a tax bill for the islands should be drawn?

Mr. TOWNER. No; I can not say that. We only know this, that at the present time there is a very archaic system under which nearly all of the property of the islands escapes taxation. For instance, only a small area of cultivated lands and practically none of the uncultivated lands pay taxes.

Mr. OLIVER. My understanding is that the taxing system in that group of islands, as they existed under foreign control, is very different from our system here. In other words, the owners of property who are best able to pay the burden escape it.

Mr. TOWNE. Yes; almost entirely. That is very true. The governor's statement continues:

Have had most cordial support from the Secretary of Agriculture toward making the islands self-supporting in food production.

Started school gardens for instruction.

It was rather singular that when we took the islands over and for several years afterwards the people of the islands, swarming as they were and with plenty of opportunity, did not even provide their own vegetables. They did not even have their own gardens or home gardens, and it was with extreme difficulty that we could teach them to have their own gardens. Our own Department of Agriculture has brought about a great reform in that regard, principally through the influence of the school teachers and school children. They are bringing about great changes and the people are being interested in the home gardens. That is something that has affected a wonderful change in the whole outlook.

The governor's letter continues—

During the past year, as compared with a previous period of 10 years, pellagra has been reduced 50 per cent, nervous diseases 65 per cent, gastro-intestinal diseases 80 per cent, and typhoid and malaria eliminated. In fact, mortality has been reduced 25 per cent.

; without going further into the general statement, I want to put the items in the estimate which have been sent in by the Governor. I think, Mr. Chairman, that this full statement by Ad-Kittelle might, perhaps, be printed in the record.

KELLEY. It may be inserted in the record at this point. The statement referred to is as follows:)

OCTOBER 11, 1921.

DEAR JUDGE TOWNER: 1. In the estimates for the Virgin Islands for the year 1923, the island budget has been arbitrarily reduced by the Budget Commission in Washington from \$343,440 (amount appropriated for current year) to \$250,000 (Budget Commission estimate for coming fiscal year) without consulting the governor as to what would result from such a drastic action. The governor's estimate for the coming fiscal year was \$384,500. He observed that the Budget Commission has made a reduction of \$134,500. I mistake not the island's appropriation of \$343,440 was provided by the Congress as a result of first-hand knowledge of conditions as ascertained from a congressional commission of which you were senior member from the House of Representatives, and which information you were able to give to the Commission on Naval Affairs handling the appropriation.

As you are aware, nothing was done for the Virgin Islands until your commission visited the islands in January, 1920, and then, after your report came to Congress, a full year elapsed without any marked movement toward carrying out the wise recommendations made by you.

As soon as possible after my inauguration as governor, I set about the work of carrying out the wishes of Congress as voiced in the adopted report of your commission, and in the six months that have elapsed, the following have been accomplished:

Extension by Congress of the Federal income-tax laws to the islands.

Debarring by Congress of aliens from holding public office.

Restoration to par of island currency.

Establishment of department of public welfare.

Provided and opened the first senior high school.

Straightened out difficulties in the judiciary and obtained passage of a law providing only one district judge.

Improved the condition of the poorhouse.

Obtained modern treatment for leper colony.

Extended sewer system, salt-water fire main system, and sanitary public system.

Extended and improved roads and streets.

Laid plans for water supply at St. Thomas, Christiansted and Frederiksted before colonial councils.

Prepared local tax laws to replace archaic Danish laws and laid same before colonial councils.

Prepared scheme for renaming streets and laid same before colonial

council. Brought before colonial council necessity for providing public bathing places.

Made improvements on public-school buildings.

Had passed automobile traffic laws.

Made extensive improvements in the three public libraries.

Encouraged Red Cross to examine all school children and all physical defects thus discovered have been properly treated.

Put into effect new code of laws for St. Thomas and St. John.

Have had most cordial support from the Secretary of Agriculture toward the islands self-supporting in food production.

Started school gardens for instruction.

During the past year, as compared with a previous period of 10 years, deaths have been reduced 50 per cent, nervous diseases 65 per cent, gastrointestinal 80 per cent, and typhoid and malaria eliminated. In fact, mortality has been reduced 25 per cent.

Code of school laws promulgated.

Carrying up the wise recommendations of your commission one by one, I am sure that what has been done toward their accomplishment.

Our Government to assist in cooperation with the people of the islands in carrying out an adequate water system in St. Thomas and St. Croix."

The governor has had plans made for water systems at St. Thomas, Christiansted, and Frederiksted and laid the same before the colonial councils for action. The total cost of all three adequate systems will now be about \$240,000. The governor believes that he is justified in saying that the people of the islands will do their best, but the suggested help of Congress will be necessary, and I very earnestly request your aid in obtaining such assistance.

"(2) A better system of transportation should be provided between the various islands and between Porto Rico and the islands. And it is recommended that the Shipping Board give immediate attention to this question."

The governor has besought the aid of the executive branch of our home Government to obtain such service from the Shipping Board, and the Shipping Board representative, who has recently visited the islands, has expressed himself as fully in accord with the plans proposed by the governor. It is hoped something more than words will result from this effort.

"(3) Steps should be taken to provide an American system of currency in place of the present Danish system which now burdens the people by virtue of exchange rates, resulting in decreased purchasing value of the Danish money."

The Danish money had been restored to par and this burden removed from the people. American currency will supplant Danish currency later when American banking comes into the islands.

"(4) The existing code of Danish laws should be superseded by a code of laws based upon American principles and ideals."

The new codes are already in effect in all the islands. Certain old supplementary laws still in existence will be modified in due course.

"(5) Educational work in the islands should be greatly extended and intensified."

The governor has given education his first attention, since the full Americanization of the islands will depend largely upon how the rising generation is trained. He has visited the schools, both public and private, and has observed the work in all grades and classes. Marked improvement in school buildings and facilities have been brought about and the first senior high school ever held in the Virgin Islands has been opened and is in operation. Further improvements are necessary and the school budget can not be cut one cent, but, on the contrary, there will be a gradual increase in cost for several years to come. Apparently no thought was given to this matter by the Budget Commission in Washington, as the will of Congress in this matter of island education was evidently not known to them. The schools must be maintained and expanded. The future of the people of these islands and their thorough Americanization vitally depend upon the education of the children. Large numbers of adults lacking in education have appealed for night schools. Shall we turn a deaf ear to such a call in order to effect an unpractical saving of a few thousand dollars? The school budget is but 20 per cent of the whole budget, whereas the lowest home State spends 36 per cent, and the Virgin Islands public schools will now compare very favorably with those in the States.

"(6) As far as practicable American boats should be bunkered and fueled at St. Thomas."

The Shipping Board is sending some of its vessels here. It is to be regretted that except for the transports few, if any, naval vessels bunker at St. Thomas. If this old practice were resumed, it would contribute to island prosperity.

"(7) There should be some method adopted by which the people of St. John will have mail delivery if it can be accomplished at a reasonable expense."

An improvement has been made in this particular, and mails now go regularly to St. John.

"(8) The agriculture experiment station should be enlarged and its work extended over the islands of St. Thomas and St. John."

The Secretary of Agriculture has given the most vigorous and cordial support to the governor in this matter. He has appointed a superintendent thoroughly versed in tropical vegetation, who has arrived in the islands and will make every effort to restore the islands to a condition of self-support in vegetables and fruit culture. Exhibition truck gardens are to be started in various places, and the public in general and the school children in particular are to be taught gardening.

"(9) The bar at Christiansted should be removed. This would open the harbor for boats of medium and light drafts."

the harbor was surveyed by Army engineers some time ago, but nothing further has been done. With a good modern dredge equipped to handle coral formation, the governor believes that he could open the harbor at very moderate expense. It is an important matter and should not be allowed to die from neglect.

(10) The establishment of libraries with good buildings at St. Thomas and St. Croix would be of great advantage in the development of these islands. Libraries at St. Thomas, Christiansted, and Frederiksted were opened by former Governor Oman and are now in thriving condition. The Red Cross gave us a start, and the American Library Association helped wonderfully. It is most pathetic to see the eagerness with which the members of the juvenile population visit and make full use of these libraries. Monthly attendance at libraries has run from 4,000 to 5,700 readers, or about one-fifth of the total population.

(11) The commission found the system of taxation on the islands unjust, inefficient, and archaic. We recommend that the entire system be reformed with a view of securing a greater income, which we believe possible, and in order to more fairly equalize the burdens of taxation. The governor has given this matter his unremitting attention, and has caused modern tax bills suitable to island conditions to be drawn up. These have been laid before the colonial councils and are being considered in committee. It is hoped that ere many months elapse the laws may be enacted. It will then require a year of experience to determine what income therefrom will result to island treasury.

(12) It is the judgment of the commission that the present local legislative system of one council for St. Thomas and St. John and one for St. Croix be retained.

This has been done, but as yet the assembly of a grand council for both islands has not been found practicable.

(13) It is the judgment of the commission that in the revision of the judicial system one court and judge having general jurisdiction should be provided for the islands of St. Thomas and St. John, and one for the island of St. Croix; that writs of error and appeals should be to an appellate court consisting of two judges from said islands and the judge of the district court of the United States for Porto Rico, sitting in banc.

Two judges were tried, but it was found that one can do the work for all the islands; and so the local laws have been amended, and there is now only one district judge under the island government. The governor earnestly commends that the Congress legislate, in accordance with the above recommendation of its commission, to remove the appellate authority from the United States appellate court at Philadelphia and vest it in an appellate court nearer the island, consisting of the district judge of the Virgin Islands, the district judge of Porto Rico, and one associate justice of the Supreme Court of Porto Rico. The appellate court of Philadelphia has been shown to be much too far away to act with full knowledge, and considerable unnecessary embarrassment has resulted to the island government.

The above information will place you in touch with conditions as they exist; and I believe it will be apparent to you that until the new tax laws are passed and have been in operation for a year, together with the income law, it will be impossible to reduce the appropriation which Congress has heretofore wisely considered necessary and which is necessary to maintain the islands. We have put our American shoulder to the wheel, and we can not lag in either education, sanitation, or in our efforts to provide water systems and make living conditions normal. The honor and prestige of the United States are at stake and should not be sacrificed for \$90,000 saving in budget campaign. These islands had no part in piling up the great war expenditures, but have been economically administered from the first.

I will write to you again, when the appropriation bill comes up next year, and ask you to maintain the appropriation at its present figure. I am extremely anxious, and I believe it is the wish of Congress, to make these islands self-supporting; but if the props are cut out from under me in the event of my efforts, local failure is sure to follow.

I have written also to Senator Kenyon.

Very sincerely yours,

SUMNER E. W. KITTELLE,
Governor.

DR. HORACE M. TOWNER, M. C.,
House of Representatives, Washington, D. C.

St. THOMAS. August 27. 1

From: The Governor of the Virgin Islands.

To: The Chief of Naval Operations.

Subject: Estimate of appropriation for the "Temporary government of West Indian Islands," fiscal year ending June 30, 1923.

References: (a) Budget Officer's letter, July 23, 1921, No. 28759-589 Opnav. letter 28370-11:1, dated July 27, 1921; (c) governor's letter of August 16, 1921; (d) department's radio 1223-1610, August; (e) ernor's radio 1025-0900, August; (f) department's radio 1026-1110, A

I. The itemized estimates of the amounts necessary to operate the sment of the Virgin Islands of the United States from July 1, 1922, to Ju 1923, are embodied herein.

Amounts estimated to be absolutely necessary to cover the deficit in ru the government for the fiscal year 1923, \$384,650.

Expenditures.

Colonial councils.....	\$8,180.00
Judiciary departments.....	32,514.00
Police and prison departments.....	69,647.40
Harbor departments.....	34,887.80
Fire departments.....	18,262.00
Health departments.....	222,551.23
Poor departments.....	30,590.00
Department of education.....	111,856.10
Public works departments.....	87,466.42
United States expenses.....	44,760.00
Subsidies.....	5,500.00
Miscellaneous.....	4,283.00
Pensions and allowances.....	3,202.05
Contingent.....	15,000.00
	<hr/> \$688,1

Revenues.

Direct taxes.....	135,400.00
Indirect taxes.....	100,320.00
Sundry revenues.....	35,400.00
Harbor department.....	32,930.00
	<hr/> 304,0

Leaving a net deficit of..... 384.0

2. The foregoing is the amount to which the governor, as the chief ex of the islands, has reduced the local budgets, but I bespeak the favorable of the department for the additional sums recommended below:

II. Estimated additional amounts required to provide public utilities sary to the healthful living conditions of the people of these islands and educational facilities, \$390,000.

III. Desirable improvements, such as Americanizing the currency, b improvements, road construction, assisting agriculture, betterment of portation, etc., have not been considered, as it is recognized that such p must be most regretfully and indefinitely postponed.

3. In explanation of II the following is submitted:

Water, or, rather, the lack of water, has held back the development of islands more than any one factor within my knowledge. The congress document No. 734, dated April 19, 1920, report of joint commission appo under authority of the concurrent resolution passed by the Congress o United States January, 1920, states on page 26:

"One of the paramount questions involved in the health and happine these islands is an adequate water supply. The well water there is not. The people are dependent upon cisterns, iron receptacles, and barrels for d ing water. The greatest misfortune of these islands is the lack of water has been so bad that one year it was necessary to import water. Nor can adequate system of sanitation be carried out until this question is met. effort has been made looking to the construction of a reservoir in the moun at St. Thomas, and plans are being worked out for a water system.

estimated that a proper water system for St. Thomas will cost about \$250,000; probably nearly as much for St. Croix. This is a vastly more important question to these people than the question of civil government. Some way must be found for our Government to cooperate with the people of these islands in solving this, the most important question involved in their situation."

The public works officer estimates that in 1922-23 this Government could provide concrete watersheds and reservoir in the island of St. Thomas on land donated by the local government for \$75,000, and in the island of St. Croix, at Frederiksted, for \$86,000, and at Christiansted for \$89,000. The sum of \$240,000 will confer an immeasurable and lasting blessing on these islands, will place them on a par with other communities, and will insure their development by private capital in the hotel and commercial fields. Common humanity and American honor alike demand that we shall fulfill this obligation.

2. Education can only expand if funds are provided. It is imperative that senior high-school courses be open to the steadily broadening stream of children attending the grammar and junior high schools of the islands. Two thousand three hundred and eighty-one children enrolled last year in the public schools, and the daily average attendance was 93.90 per cent in St. Thomas and St. John and 82.70 per cent in St. Croix. The new school law raised the age limit of compulsory education from 13 to 15 years. Vocational training and domestic science courses, employment of trained American teachers, will require increased amounts. The \$150,000 asked for intensifying the system of education will be spent on land, buildings, salaries for American teachers, and greatly needed equipment. Over 500 people over school age and deficient in common-school education have appealed for night-school instruction. Can the United States consistently deny such an appeal?

3. The \$384,650 in I is the irreducible minimum beyond which this government can not function in other than a halting, retrograding fashion. It does not include any new construction or progressive development of any kind, such as we are pledged to provide, but is bare governmental deficit.

ST. THOMAS, December 30, 1921.

MY DEAR JUDGE TOWNER: In accordance with my promise I am writing to you again on the subject of the budget for the Virgin Islands, as the holidays are now over and the budget is before Congress. I am inclosing a copy of my letter to you dated October 11 last, as the data in that letter will enable you to better understand conditions as they are.

Perhaps you will remember, from your visit here in 1920, that one of the principal reasons why Congress made the appropriation for these islands in the first place was that when we took the islands two definite sources of income stopped and short. These two were the lottery, which paid yearly into the local treasury \$100,000, and loss of custom duties on imports from the United States which formerly were paid into the local treasury. Goods from the United States became free at once. This loss deprived the local treasury of about \$200,000. To be exact, in 1916, the year before we took over the islands, the amounts collected would have been \$191,341.65. Thus the American occupation deprived the islands of a former income of approximately, in round numbers, \$300,000.

It is unfortunate that the budget for the Virgin Islands can not be considered on its own merits. It is carried on the naval budget and as such it is seemingly compelled to bear its share of retrenchment in naval expenditures, whereas the expenditures are not naval in any sense, but purely and entirely civil. The government of the Virgin Islands is not a naval government, but a civil government, with executive, legislative, and judicial departments. The island government has been very frugal and for every dollar spent has secured a full dollar's value. Hence our public-school system, which I wish Congress would compare with that in the States; it is better than in many States, and it costs only 20 per cent of the local budget, as against 36 per cent for the State that spends least, and I know that in some States the amount runs up to 50 per cent.

A tax law based upon American principles and framed to be very gentle in its findings, as compared with tax burdens in the States, is before the colonial councils now. It is having a hard time. In the colonial council for St. Thomas and St. John, which is fully controlled by the Danish financial interests, which interests are quietly anti-American, the bill is being amended in such a way as to render it valueless, not only as to American principles, but also as to revenue.

The plain people are with the government, but unfortunately they have no voice, as the interests control the council. And right here I can not speak highly of the real American spirit which is becoming manifest among the people; it would be a great gratification to the President and to the Congress to see it.

I most earnestly urge that the island budget be not reduced, for if Congress will but continue it for a few years more I firmly believe that the island become self-supporting. You will remember that it is not yet two years your commission of Congress visited the islands, and to withdraw congressional support so soon would operate to undo much that has been done toward Americanization.

I have written also to Senator Kenyon.

Very sincerely, yours,

SUMNER E. W. KITTELL
Governor

HON. HORACE M. TOWNER, M. C.,
House of Representatives, Washington, D. C.

EXPENDITURES OF GOVERNMENT.

Mr. TOWNER. The amount of expenditure, as estimated by the Governor of the islands, is \$668,700; the amount of revenues derived from the islands was \$304,050, leaving a net deficit of \$384,650. The items are as follows:

Colonial councils.....	\$8,000
Judiciary departments.....	32,500

That, you will understand, includes all of the judiciary, even the local and municipal courts.

Police and prison department.....	\$69,600
Harbor departments.....	34,800
Fire departments.....	18,200
Health departments.....	22,500
Poor departments.....	30,500
Department of education.....	111,854
Public works department.....	87,400
United States expenses.....	44,700
Subsidies.....	5,900
Miscellaneous.....	4,200
Pensions and allowances.....	3,900
Contingents.....	15,000
Total.....	668,700

Now, the items of revenue are—

Direct taxes.....	\$12,500
Indirect taxes.....	10,000
Sundry revenues.....	3,000
Harbor department.....	3,000
Total.....	30,500

That leaves a net deficit of \$384,650.

It will be noted that the principal items constituting, I suppose almost five-sixths of the entire expenditures that will be required at least, to be paid by the Government, are in the two items of the departments, \$22,551.23, and department of education, \$111,854. Now, gentlemen, those items can not be reduced. There is no possible question about that. If the committee feels that there ought to be any reduction at all from the estimates, I sincerely hope you will not go below the current appropriation. I think that will be absolutely impossible. I think it would bring such discredit to ourself

ad such impairment of the work down there that it would be very discouraging.

Mr. OLIVER. What does the total amount to?

Mr. TOWNER. The total of the appropriations for this year?

Mr. KELLEY. No; the deficit.

Mr. TOWNER. The total expenditures as now estimated amount to \$388,700; the total revenues of the islands are estimated at \$304,050, leaving a deficit of \$384,650. That is the estimate as made by Admiral Kittelle. The expenditures for the current fiscal year amount to \$342,440, and I very earnestly recommend that that amount be not reduced.

Mr. OLIVER. Does your committee contemplate recommending to Congress at any time in the near future a tax bill for the islands?

Mr. TOWNER. I will say that practically everything that we have recommended in our report has been carried out very successfully. This is the only thing that has not been done.

Mr. OLIVER. Is not that a very important matter?

Mr. TOWNER. It is the most important of all.

Mr. OLIVER. What are the reasons for delaying it longer?

Mr. TOWNER. There are no reasons. We have now given them ample opportunity to do it themselves, and that is the way it should be done.

Mr. OLIVER. If the matter is left to them, it is not likely that it will be done along lines that we can approve.

Mr. TOWNER. I think that is true.

Mr. OLIVER. It seems to me that in drafting a bill of that kind we are bound to follow what our observation and experience here at home leads us to believe is a just and equitable taxing system.

Mr. TOWNER. I entirely agree with you. My idea now is to have a tax expert sent from the United States, probably from the Treasury Department, so that the exact conditions in that regard can be reported to us. Upon that information, we will prepare a bill.

Mr. KELLEY. We are very much obliged to you.

THURSDAY, MARCH 23, 1922.

EXPERIMENTAL RESEARCH LABORATORY.

STATEMENT OF CAPT. E. L. BENNETT, TECHNICAL AID TO THE SECRETARY OF THE NAVY.

Mr. KELLEY. There is an item on page 13 for the Experimental Research Laboratory. Please tell us about this laboratory.

Captain BENNETT. This laboratory was authorized by law several years ago to be built on the grounds of the Bellevue Magazine, for experimental and research purposes for the entire Navy. The buildings are completed and the equipping of them is under way. We then hope to have the place ready to start operations about the first of July, but we have no money yet with which to operate it. The original estimate for operation for the first year was \$300,000, and that was reduced by the Budget officer to \$100,000.

Mr. KELLEY. You mean by operation the expense of the employees, the keep of the buildings, and upkeep of the plant?

Captain BENNETT. And fuel and material.

Mr. KELLEY. But not equipment? The building is equipped with the necessary laboratory facilities?

Captain BENNETT. It will be out of the existing appropriation.

Mr. KELLEY. This is for operating the laboratory?

Captain BENNETT. For operating expenses for the coming year.

Mr. KELLEY. Give us the details of it.

Captain BENNETT. The original estimate was \$300,000. The Navy had nothing to go upon in the way of precedents with regard to how much it would cost to run an establishment of this sort, but my predecessor, who has been connected with this project from its inception, traveled around the country and got some data from the research laboratories of the large commercial establishments, like the General Electric Co., the Edison Co., etc., and he found that they were spending anywhere from \$500,000 to \$1,000,000 a year on such work. He decided that we could run our laboratory for the first year on \$300,000, and that sum was apportioned as follows: Salaries, \$49,490; wages, \$93,036; fuel, \$22,500; repairs and maintenance, \$25,000; temporary test houses, \$25,000; emergency current, \$15,000; stationery, office supplies, etc., \$1,500; telegraph and telephone service, \$600; material for experiments, \$50,000; and additional equipment, \$20,000. As I say, that estimate was cut by the Budget officer to \$100,000, and we have not attempted to allocate the \$100,000 among the various items that are enumerated in the first estimate. We did not know how to do it, because we had nothing to go on.

Mr. KELLEY. Is not Admiral McVay going to conduct some experiments down there?

Captain BENNETT. We expect to be patronized by all the bureaus.

Mr. KELLEY. He has a fund of \$250,000, or something of that kind for experiments and researches. Why could he not help you out on such work as you may do for him?

Captain BENNETT. We will have to be helped out very materially by the various bureaus for which experiments will be conducted, because \$100,000 will not much more than pay the overhead.

Mr. KELLEY. Admiral Taylor has a fund for experiments.

Captain BENNETT. Yes, sir; but I question whether we will do very much for the Bureau of Construction and Repair.

Mr. KELLEY. And for the Bureau of Engineering?

Captain BENNETT. We should do a great deal for them.

Mr. KELLEY. You have a large fund for experiments, have you not, Admiral?

Admiral ROBISON. That is unlimited.

Mr. KELLEY. You can use your own discretion about that?

Admiral ROBISON. Yes, sir. We will use about \$150,000 for that purpose this year.

Mr. KELLEY. Where will you conduct your experiments mostly?

Admiral ROBISON. The sort of work that we expect will be done at the laboratory is now being undertaken at the Washington Navy Yard and by the Bureau of Standards. I am not sure that the Bureau of Standards work should not continue to be handled at that point, where it is available for all of the departments of the Government.

ELLEY. Do you know how much experimental work you will do, such as might be done under Captain Bennett at this yard?

MR. ROBISON. I would start off by giving him \$25,000.

ELLEY. What other bureaus would you be likely to do work at?

MR. BENNETT. Possibly for aeronautics.

ELLEY. So that, if this \$100,000 were given you, and you furnished with some little generosity by the other technical bureaus, you could get along all right?

MR. BENNETT. We will make a start, and I hope that by the next year we will be able to prove the value of the laboratory, and our original estimate will go in next time.

ELLEY. How large a plant is this?

MR. BENNETT. I have a picture of it here. That building [in the foreground] on the right is a machine shop, 300 by 80 feet; and the building next to it is a foundry, which is about 100 by 60 feet; the next building is a pattern shop of the same size; and the chimney indicates where the powerhouse stands; in the background is the laboratory building, 200 by 60 feet—three stories in height.

ELLEY. How much did that plant cost?

MR. BENNETT. The appropriation was \$1,500,000, and it will be expended by the time the place is equipped.

ELLEY. How far down the river is this?

MR. BENNETT. It is about 7 miles from the navy yard, as I

understand. Did you move any of the plant from Annapolis here?

MR. BENNETT. No, sir; nothing has gone from there and I do not think that anything will go from there. The plant at Annapolis is for the construction of a testing plant for completed material; this one is intended for research purposes, and particularly as a development laboratory.

ELLEY. Who located it?

MR. BENNETT. That was done before my time.

MR. COONTZ. Mr. Daniels.

ELLEY. Seven miles down the river?

MR. BENNETT. It is 2 miles below St. Elizabeths.

ELLEY. How do you get down there?

MR. BENNETT. The trolley cars go within 1½ miles of the place.

ELLEY. Is there anything else there besides the laboratory?

MR. BENNETT. The Bellevue magazine occupies about half of the Government property.

ELLEY. What was the reason for the location of it at that

MR. BENNETT. It was desired to have it in the District so that it would be readily accessible to the Navy Department; and, I suppose, it was the most suitable available Government land.

ELLEY. They put it as far as they could to keep it inside the District line?

MR. BENNETT. I was not here at that time. The Navy wanted it in Washington. The original proposition of certain ones of the consulting board was to locate it in New York.

ELLEY. Is it accessible to the bureaus that will use it?

Admiral COONTZ. Yes, sir; the bureau chief can go down and a look at what is going on there.

Mr. KELLEY. Should it not have been built closer to the city?

Admiral COONTZ. They had the land free.

Captain BENNETT. It was Government land. In addition, there is a dock there, and we can bring good-sized ships alongside. We have 24 feet of water alongside the dock. If we have developed something and wish to try it on board ship, we can bring the ship alongside, put the thing on board, and try it out.

Mr. KELLEY. The officers are in Washington?

Captain BENNETT. Yes, sir; there are no quarters down there.

Mr. KELLEY. Is any part of this estimate for the purpose of building quarters?

Captain BENNETT. No, sir.

SALARIES.

Mr. KELLEY. Let us see how your salaries run: You have a draftsman at \$4,800. Is that about what Admiral Taylor and Admiral McVay pay their chief draftsmen?

Captain BENNETT. Admiral McVay can answer that better than I can. This list was prepared by Admiral Smith, who spent many years on this project, and I have not presumed to go behind his judgment.

Mr. KELLEY. Is that about what you pay chief draftsmen, Admiral?

Admiral McVAY. Yes, sir.

Mr. KELLEY. You have other draftsmen at from \$3,750 down to \$1,400. You are hoping to get enough income from the other means to maintain about this schedule?

Captain BENNETT. No, sir; this is what would be classed as overhead. We expect to have to pay out of the \$100,000 the permanent force, which would consist largely of technical and clerical personnel and a few of the head mechanics, who will be especially selected on account of their ability to conduct research work. It requires a man of peculiar disposition and temperament to be successful in experimental and research work. Production does not enter into it at all. Having established this nucleus force, assume that the Bureau of Ordnance wants some experiments conducted: As we do not have sufficient money to pay for it, we would rather expect the Navy to chip in and help. We would get the mechanics and laborers, probably from the Washington yard, and we would pay for them out of the transfer of funds. The Bureau of Ordnance would then reimburse us. That is our general scheme, but we do not know exactly how the details will work out.

Mr. KELLEY. This is under the Secretary's control?

Captain BENNETT. It is under the Assistant Secretary.

Mr. KELLEY. But it is under the Secretary's office?

Captain BENNETT. Yes, sir.

Mr. KELLEY. That is where it belongs, really, as a matter of fact, is it not?

Captain BENNETT. Yes, sir; if it were under any one bureau, that bureau would own it.

Mr. KELLEY. It is for all of the bureaus?

Captain BENNETT. Yes, sir.

THURSDAY, MARCH 23, 1922.

OFFICE OF THE SOLICITOR.

STATEMENT OF REAR ADMIRAL JULIAN L. LATIMER, JUDGE
ADVOCATE GENERAL OF THE NAVY.

SALARIES.

Mr. KELLEY. Office of the solicitor, Navy Department.

Admiral LATIMER. The office of the solicitor is a part of my life and therefore I appear in behalf of that item.

Mr. KELLEY. For 1922 you had for your statutory roll \$22,990.

Admiral LATIMER. Yes sir.

Mr. KELLEY. How much do you want for next year?

Admiral LATIMER. For 1923 I want the amount of the estimate, \$22,990.

Mr. KELLEY. You want the same number of clerks and the same amount for salaries?

Admiral LATIMER. Yes, sir; the same list of clerks and the same pay. However, the lump-sum appropriation has been reduced.

Mr. KELLEY. I am referring to the statutory roll.

Admiral LATIMER. That is the same.

TEMPORARY EMPLOYEES.

Mr. KELLEY. Then you had for 1922 a lump-sum appropriation of 20,000 and you are asking \$19,920 for 1923?

Admiral LATIMER. Yes, sir. We had \$22,520 last year and we reduced it to \$19,920, a reduction of \$2,600.

Mr. KELLEY. You ask an increase of \$150 for one clerk.

Admiral LATIMER. That is an increase from \$2,250 to \$2,400. He is an attorney who, by error, was reduced last year from \$2,400 to \$2,250; he has been getting \$2,400 up until last year, and we increased his salary by \$150 in order to put him back where he had been. He has served a year longer and gotten \$150 less.

Mr. KELLEY. This is the one we took care of in the naval bill last year.

Admiral LATIMER. Mr. Dyson is his name.

Mr. KELLEY. So you want that put back to \$2,400?

Admiral LATIMER. Yes, sir; where he was before.

Mr. KELLEY. That is to correct a mistake?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. He has been getting \$2,400 this year?

Admiral LATIMER. No, sir; he has only been getting \$2,250.

Mr. KELLEY. I remember something about it, and I thought we intended to fix that.

Admiral LATIMER. I understand you did.

Mr. BYRNES. Do these attorneys get the bonus?

Admiral LATIMER. Yes, sir.

Mr. BYRNES. I do not particularly mean the one we are discussing.

Admiral LATIMER. All of the attorneys get the bonus.

Mr. KELLEY. How old are these men?

Admiral LATIMER. Mr. Dyson, the one you are putting up to \$2,400. I should say was a man between 45 and 50. He is a very stable, excellent, and valuable man.

Mr. KELLEY. Is he a naval officer?

Admiral LATIMER. No, sir; he is a civilian attorney. All of these are civilian attorneys.

Mr. KELLEY. Is that all you have, Admiral?

Admiral LATIMER. That is all under the office of the solicitor. However, I will say that we have now gotten our office down to the budget for next year.

LAWYERS.

Mr. KELLEY. How many lawyers have you in the department?

Admiral LATIMER. Of the civilian attorneys we have in all six.

Mr. KELLEY. And none of them get above \$3,000?

Admiral LATIMER. No, sir. Then, of law clerks, who are also graduates in law, we have nine. Then we have a number of officers who are also graduates in law.

Mr. KELLEY. All of these lawyers you speak of are civilians?

Admiral LATIMER. All of these I am speaking of now; yes, sir.

Mr. KELLEY. How many officer lawyers have you?

Admiral LATIMER. Of officer lawyers we have five and nine students taking a law course. Four of them graduated this year from the George Washington University.

Mr. KELLEY. You have 12 lawyers and 4 students?

Admiral LATIMER. Five lawyers and nine students.

Mr. KELLEY. Are the nine civilians or are they officers?

Admiral LATIMER. They are officers.

Mr. KELLEY. We carry their pay—

Admiral LATIMER (interposing). In pay of the Navy.

Mr. KELLEY. Do they get any extra pay for their post-graduate work?

Admiral LATIMER. No, sir. They go to school until 11 o'clock, work until 5 or 6 o'clock in the afternoon, and then go home and to their studying.

Mr. KELLEY. How long do you keep these boys?

Admiral LATIMER. Three years and then they go back to sea. They stay long enough to take their final examinations in college and take the bar examination in the District.

Mr. KELLEY. Why do you need lawyers at sea?

Admiral LATIMER. They are sea lawyers.

Mr. KELLEY. I have known of lots of lawyers at sea.

Admiral LATIMER. A number of those men specialize in international law and admiralty law; they are also very valuable in big court-martial cases and big cases of inquiry. We find they are always in great demand at sea because of their legal training.

Mr. KELLEY. Do they act as judges of the courts?

Admiral LATIMER. Yes; as judge advocates, as counsel for the defense, as judge advocates in big inquiries, in collision investigations, where a knowledge of admiralty law is valuable.

Mr. KELLEY. How many lawyers like that have you in the Navy?

Admiral LATIMER. I should say, roughly, 60 in the Navy and Marine Corps.

Mr. KELLEY. And they have the various grades and ratings of the service?

Admiral LATIMER. From captain down.

Mr. KELLEY. Have you any lawyer admirals?

Admiral LATIMER. I am not sure. We had one but he is retired.

OFFICE OF JUDGE ADVOCATE GENERAL.

SALARIES.

Mr. KELLEY. For the office of the Judge Advocate General you had in your regular appropriation \$28,810.

Admiral LATIMER. \$38,060 in 1922.

Mr. KELLEY. For your statutory roll?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. Let us keep to the statutory roll and take up the lump-sum roll later.

Admiral LATIMER. I had it in a lump sum last year.

Mr. KELLEY. Are you sure about that, Admiral?

Admiral LATIMER. That is what it states here, sir.

Mr. KELLEY. At the bottom of the first column it says "statutory, \$8,810." That is the right amount, is it?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. And you are asking this year for \$29,810?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. How do you account for the increase of \$1,000?

Admiral LATIMER. We are taking over two clerks that we had from the Secretary's office, one at \$1,400 and one at \$1,200. We had two clerks in our office from the Secretary's office, with total salaries of \$2,600, so that there is really a reduction and not an increase.

Mr. KELLEY. Then you take in two, one at \$1,400 and one at \$1,200, and lose one at \$1,600, so that makes the \$29,810.

Admiral LATIMER. Yes, sir.

Mr. KELLEY. This is not an increase?

Admiral LATIMER. It is a decrease, sir.

Mr. KELLEY. And no new positions?

Admiral LATIMER. That is right.

Mr. KELLEY. It is a transfer?

Admiral LATIMER. Yes, sir. Then one \$1,600 clerk is promoted to \$2,000.

Mr. KELLEY. Do you promote the \$1,600 clerk?

Admiral LATIMER. He is a law clerk and we can not get along without him.

Mr. KELLEY. He takes the other position?

Admiral LATIMER. Yes: he takes the \$2,000 position.

Mr. KELLEY. And you vacate that place?

Admiral LATIMER. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. Last year you had \$6,000 in the lump sum and you are asking the same amount for 1923.

Admiral LATIMER. Yes, sir.

Mr. KELLEY. Two attorneys at \$3,000 each.

Admiral LATIMER. Yes, sir.

Mr. KELLEY. And you have them now?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. Is that all you have?

Admiral LATIMER. Yes, sir.

Mr. KELLEY. We are very much obliged to you.

THURSDAY, MARCH 23, 1922

OFFICE OF NAVAL RECORDS AND LIBRARY.

STATEMENT OF CAPT. D. W. KNOX.

SALARIES.

Mr. KELLEY. What is your position, Captain?

Captain KNOX. I am in charge of the Office of Naval Records and Library.

Mr. KELLEY. You had this year \$21,000, and you are asking how much for next year?

Captain KNOX. I am asking for \$20,000.

Mr. KELLEY. And that comes about by dropping one clerk?

Captain KNOX. At \$1,000; yes, sir.

Mr. KELLEY. Is he dropped out or sent somewhere else?

Captain KNOX. We will have to drop him out.

Mr. KELLEY. Is that all there is to it?

Captain KNOX. I have another item on the next page.

NAVAL WAR RECORDS.

Mr. KELLEY. That item relates to naval war records, and I presume they have reference to the World War?

Captain KNOX. Yes, sir.

Mr. KELLEY. This year you had \$20,000 and you are asking for \$19,000 for next year?

Captain KNOX. Yes, sir.

Mr. BYRNES. How long is it going to take you to complete these records?

Captain KNOX. Well, it is very difficult to estimate. Of course there is a great mass of papers to be sorted, but I think probably 15 years, at the present rate. The Secretary of the Navy has approved a recommendation to try and increase the clerical force when the state of the Treasury will warrant it, so as to utilize the supervisory force to better advantage, thus saving overhead by reducing the number of years it will take.

Mr. KELLEY. What did you start out to do when you commenced on this job?

Captain KNOX. Congress appropriated money for the collection and classification, filing, and indexing of these documents with a view to publication. The method followed with respect to the Civil War records was to print everything, which makes an enormous number of records to be printed, and I recommended that the Sec-

try approve a general policy which contemplated the printing of only selected documents, the most important, and that the remainder of the work should be covered by the writing of a general history. In that way it will reduce very greatly the number of volumes to be printed. I have here a paper which goes into a little detail on that.

Mr. KELLEY. You say it will take 15 years?

Captain KNOX. That is an approximate estimate; it may take 10 and it might take 20, because the section was not started until after the war finished.

Mr. KELLEY. How do you get these records?

Captain KNOX. The records from London have been received and the records of most of the activities which have ceased have been put in; there is a general order to send in all records. It remains to go through the files of the department and the going concerns which have still retained their records.

Mr. KELLEY. This is for the purpose of preserving the historical situation of the war?

Captain KNOX. The records of the war itself; all the activities of the Navy Department during the war.

Mr. BYRNES. Of our Navy, or are you covering all the activities of other navies?

Captain KNOX. Primarily for our Navy and incidentally other navies in so far as they are directly concerned with our Navy.

Mr. BYRNES. And that would take you 15 years with this force?

Captain KNOX. It has been estimated that there are about a million papers to go through. Of course, we do not file all of them; the sorting eliminates perhaps 80 per cent of them.

Mr. KELLEY. For instance, you take Admiral Sims. I suppose he had great quantities of material over there?

Captain KNOX. Yes, sir.

Mr. KELLEY. He sends that here and you sort that over; is that?

Captain KNOX. That is the scheme and that has been done, that particular part.

Mr. KELLEY. That has been finished?

Captain KNOX. Yes, sir.

Mr. KELLEY. Where else do you go to get your records?

Captain KNOX. In the Navy Department, the various navy yards, and the various naval districts. In addition to Admiral Sims's own office there are the records of each office in Europe, the records of each ship that participated in the war, and so on.

Mr. KELLEY. Just in what form do you preserve the records?

Captain KNOX. The Civil War method was to print practically every document, but that would be very expensive and take a very long time, and after that was finished you would not have anything that was worth the expenditure. So the present proposal is to print only those of special value and interest and to cover the remainder of the work by a general history.

Mr. BYRNES. And you are determining what is of special value?

Captain KNOX. Yes, sir; that has to be done in the historical section.

Mr. BYRNES. Who does it? Do you perform that duty? Do you determine the value of the documents?

Captain KNOX. I am the head of the office and I have a number assistants, but we have not yet gotten to the point of determining what to print. We are simply segregating and building up archives.

Mr. BYRNES. This was done at the end of the Civil War?

Captain KNOX. We have not finished the Civil War records.

Mr. BYRNES. Are you working on them?

Captain KNOX. Yes, sir; in the library. We have not finished Spanish War, the Mexican War, the War of 1812, or the Revolutionary War, either.

Mr. KELLEY. How valuable is this?

Captain KNOX. As valuable as any history is.

Mr. KELLEY. There will be so much of it that nobody will ever use it after you get it finished?

Captain KNOX. That was true of the Civil War.

Colonel ROOSEVELT. I think you will find that every person who takes up naval history will refer to these records. No one will use them as a book, but if we have historians they would want the information. As a book of reference it would be vitally necessary to anybody writing history.

Mr. KELLEY. It will contain the reports of admirals, reports of engagements, and that sort of thing?

Captain KNOX. Yes, sir.

Mr. KELLEY. How much of a history will you write?

Captain KNOX. I can have no idea until the archives approach completion; perhaps eight or ten volumes, roughly.

Mr. KELLEY. You approve of this, Colonel?

Colonel ROOSEVELT. Yes, sir; we certainly ought to have it.

Mr. KELLEY. Why would it not be a better plan to get the principal actors of the war to collaborate and write a history?

Captain KNOX. That is one argument for finishing this work quickly.

Mr. KELLEY. Do you not agree that this should be completed in less than 15 years?

Admiral COONTZ. Yes, sir; if we had the money. I am still getting volumes of the records of the War of the Rebellion started by Senator Cockrell for me probably 25 years ago; there are 78 volumes. That is still coming out. You could complete this in five years if you had the force?

Captain KNOX. Yes, sir; more than double the force.

Colonel ROOSEVELT. It is not only the history, but the compilation of statistics which can be used for reference hereafter.

Mr. KELLEY. Why do you want to hire somebody at \$2,000?

Captain KNOX. To secure somebody with judgment to pick what is important and what is not—rather a high-class man.

Mr. KELLEY. If they detailed a good retired officer, perhaps they could do it very well.

Captain KNOX. I have three reserve officers. There is some doubt about their continuing after the 1st of July.

Mr. KELLEY. I dare say that among the retired officers you can find somebody specially fitted and adapted to this work and they would like to do it.

Admiral COONTZ. It would very greatly increase the cost.

Mr. KELLEY. A retired officer would do it for nothing.

Admiral COONTZ. You order him to active duty and give him his allowances, and you would find that \$2,000 would not last long.

Mr. KELLEY. He would do it better.

Admiral COONTZ. The \$2,000 man would be much more permanent. On the other hand, Congress by special legislation put three of them here to last until the 30th of June, 1922. They may retain some of them.

Captain KNOX. Permanency of personnel in this kind of work is very important. That is the reason for asking for one high salary.

Mr. KELLEY. I would not think that you would get a very reliable and well-prepared man for \$2,000. The employee who is now getting \$1,800 is to be promoted to \$2,000. That is the only change you have made in the pay roll?

Captain KNOX. Yes, sir.

Mr. LUNENBURG. There is one less at \$1,000.

Mr. KELLEY. That leaves how much for this work?

Captain KNOX. Nineteen thousand dollars, instead of \$20,000, appropriated last year.

Mr. KELLEY. This will carry the work along about as it is going now?

Captain KNOX. Just about the same.

Mr. KELLEY. How many employees have you altogether doing this work?

Captain KNOX. Fifteen clerks are employed at the present time, besides three reserve officers and myself.

COMPLETION OF NAVAL RECORDS OF THE WAR OF REBELLION.

Mr. KELLEY. The next item is "Toward completion of the publication of 11,000 copies of the official records of the Union and Confederate Navies in the War of the Rebellion, \$4,500." Have you started that?

Captain KNOX. That represents the printer's estimate for work now in his hands. It is a reappropriation of money formerly turned back into the Treasury from an old appropriation. They thought that they did not need it, but the cost of printing has gone up.

Mr. KELLEY. The work is in his hands?

Captain KNOX. In the printer's hands.

Mr. KELLEY. How large a work is this?

Captain KNOX. It is the last volume proper of the records of the Rebellion. I suppose it is about 400 pages.

Mr. KELLEY. How many volumes of this work?

Captain KNOX. This is the thirtieth volume. There remains only the general index to be completed.

Mr. KELLEY. Will it be paid for out of the \$4,500?

Captain KNOX. No; the general index is not to be paid for out of this appropriation.

Mr. KELLEY. That will come later?

Captain KNOX. That will be next year.

Mr. KELLEY. This is the last volume of the history?

Captain KNOX. The last volume of these records.

I have a short paper here approved by the Secretary of the Navy, which perhaps you would like to incorporate in the record.

Mr. KELLEY. Yes, sir.

(The statement submitted by Captain Knox follows:)

DECEMBER 19, 1921.

From: Officer in charge historical section.

To: Secretary of the Navy.

Via: Director of Naval Intelligence and Chief of Naval Operations.

1. In order to facilitate the work of this office it is deemed advisable at this time to decide upon general policies respecting its future activities. Approval of such policies now will permit the work to be planned and prosecuted in a more orderly and economical way than is possible under present conditions.

2. The small number of the personnel in the historical section has heretofore limited its work principally to the preparation of necessary replies to many queries received from members of Congress and civilians throughout the country. The gradual reduction in the volume of these demands has permitted recently the organization of the section primarily for the purpose of building up the historical archives. A great quantity of documents still remain distributed in many parts of the naval establishment. These require careful examination and many eliminations before final incorporation in the archives. This work of selection, arrangement, and filing is a task of very considerable magnitude and will require a number of years to complete with the present personnel of the section. The sooner it is finished the more economical and efficient will be the result, since the work is facilitated by the fact that a large number of persons familiar with the incidents of war and with the various files of the Navy still remain in the service.

3. The principal economy that would result from an early completion of the work of filing and indexing is the saving in overhead charges. The present force supervising this work could supervise efficiently a subordinate force several times greater. Of the present overhead approximately \$10,000 annually could be eliminated upon the completion of the archives. Salaries of subordinate clerks employed in archive building aggregate \$17,380. Probably this force can complete the work in about 20 years. By doubling the subordinate force, without increasing the supervisory force, the work could be completed in half the time; about 10 years. A saving of \$10,000 overhead for 10 years amounts to \$100,000. Similarly if the present subordinate force be quadrupled the time would be reduced to 5 years and the saving increased to \$150,000. These savings would be even greater if the salaries of the supervisory force, some of whom are reserve officers, should be increased in consequence of promotion. The doubling of the present subordinate force would create 12 additional clerks and require an increase in the current appropriation for the office from \$19,000 to about \$35,000, and would permit archives to be complete in about 10 years. Quadrupling this subordinate force would require a total office appropriation of about \$70,000 and result in completion of archives in about 5 years.

4. The intention of Congress, as expressed in the appropriation act, is that the historical selections shall be printed ultimately. If the plan adopted for the records of the War of the Rebellion, which involved the publication of substantially the entire collection, be followed in the present case the result will be a poor return in proportion to its necessarily great cost. Its mere bulk will forbid intelligent interpretation, analysis, and digestion of its contents; and much of the greater part can not prove of even casual interest to the average person. Of course, there are many documents so interesting and valuable historically as to require their publication; if for no other reason to insure the preservation of their subject matter. The selection of these from the bulk of the historical archives will be a process additional to the task now in progress of building up these archives with documents retained from many that are eliminated. The future second selection will result from the needs for reasonable economy in printing and rational utility of the volumes.

5. The need for making available to the country at large the sense of the historical archives as a whole, will require a distillation of them in the form of a general history. Utility and economy will both be served much better in this way than by the publication of the entire archives. At present the historical section is preparing and publishing a series of monographs on various aspects of the war, with a view to satisfying public interest. But these monographs are necessarily incomplete, and in some respects inaccurate, due to the sources from which they are drawn; for the archives are themselves as yet

from complete. Furthermore the publication of monographs of detached parts of the naval effort during the war can not fill the broader need for a comprehensive understanding of that effort as a whole. There appears to be a satisfactory course but to undertake the preparation of an official history until the archives reach approximate completion.

6. The nature of the work in progress, and in prospect, obviously requires a great degree of both specialization and permanence among the supervisory personnel of the historical section. The last appropriation act authorized a retention on active duty in this section of three reserve officers until July, 22. Unless the work of the section is to be handicapped seriously this authorization should be made permanent and a way kept open for the retention of the officers mentioned.

7. The technical knowledge of officers must be combined with the special abilities of the professional historian if a satisfactory naval history is to be produced. Hence it is strongly urged that previous recommendations of my predecessor and others for the appointment of a well-qualified civilian historian to the historical section be adopted by Congress.

8. The following recommendations are therefore made for adoption as policies; to be carried out as closely as circumstances permit, and where necessary being urged upon Congress on appropriate occasions:

1. Moderate expansion of the office force, as practicable under a limit of about \$10,000 annually in funds, with a view to completion of the work of archives building in about five years.

2. Publication of a series of preliminary monographs upon certain of the Navy's principal war activities. (This has been done with the object of satisfying public demand for such matter at a reasonably early date.)

3. Ultimate publication of a limited number only of the original archive documents, selected with reference to their special interest and importance.

4. Ultimate preparation and publication of an official general naval history of the war.

5. Maintaining permanence of the supervisory force of the office, most of whom are already specialized in the work.

6. Continuation of present force of three reserve officers and appointment of one or more well-qualified civilian historians within about two years.

D. W. KNOX,
Captain, United States Navy.

NAVY DEPARTMENT,
Washington, D. C., February 21, 1922.

From: The Secretary of the Navy.

To: Officer in charge, historical section.

Re: Chief of Naval Operations.

Subject: The mission of the historical section.

Reference: (a) Your letter of December 19, 1921.

1. The recommendations made in subparagraphs 2, 3, and 4 of paragraph 8 of reference (a) are approved and will be considered from this date as the mission of the historical section. The recommendations made in subparagraphs 1 and 5 are approved and have already been forwarded to the Judge Advocate General with the directions that he will, when later directed, prepare the necessary legislation.

T. ROOSEVELT, Acting.

THURSDAY, MARCH 23, 1922.

OFFICE OF CHIEF OF NAVAL OPERATIONS.

STATEMENTS OF ADMIRAL R. E. COONTZ, CHIEF, AND LIEUT. COMMANDER H. W. HILL, AID.

SALARIES.

Mr. KELLEY. This year for the statutory roll you have \$25,650. How much are you asking for the coming year?

Admiral COONTZ. An increase of \$1,000 for the chief clerk.

Mr. KELLEY. What is the salary of chief clerks generally throughout the department?

Admiral COONTZ. \$2,250. This item appears in all of the budgets.

Commander HILL. That was the decision of the Secretary, they were decidedly underpaid and should be increased.

Mr. KELLEY. This is the only change in your statutory list?

Admiral COONTZ. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For your temporary roll you have \$40,000 this year. How much are you asking for next year?

Commander HILL. For next year we are asking for a total of \$33,720. There is a little change to be made in the estimates as printed.

If I go right down the list you can make the changes and I will explain them afterwards.

Mr. KELLEY. Yes, sir; proceed.

Commander HILL. In the principal clerk, \$2,000, the number should be changed from four to three. There was a duplication. One person who is now chief clerk in the Bureau of Aeronautics, who was transferred. We should like to retain the wording authorizing us to employ not more than four at \$2,000 each, because we have two three people at \$1,800, and should the reclassification bill not pass through, without increasing the appropriation, we would like a hole open so as to let us give one a promotion. That does not increase the appropriation at all.

The estimates as submitted call for three at \$1,800 each. When Captain Watts, who was talking to you the other day in regard to the letter that the Secretary had submitted for a photographer to be charged against the appropriation for gunnery exercise and engineering performances, you asked that that be not considered under this appropriation, but that it be brought up when we were considering this part of the bill. The effect of that would be to change three at \$1,800 to four at \$1,800. Having stricken out one at \$2,000 means a net decrease in the total of \$200, \$33,720.

Mr. KELLEY. In all other respects the figures are the same as the current year?

Commander HILL. No, sir. This indicates a decrease of \$3,580 in this year's expenditures. This is a net decrease of 6 per cent in the amount left after the people we have working for aeronautics are transferred.

Mr. KELLEY. It is the same as you had, except those to be transferred to other bureaus?

Commander HILL. No, sir; it is 6 per cent reduction on what is left after all the readjustments are made.

Mr. KELLEY. The only change is that which you have already indicated, except the transfers?

Commander HILL. The only change shown here on the printed estimates.

Mr. KELLEY. How many officers are detailed to the office of Chief of Operations?

Commander HILL. For that part of the operations covered by that part of the clerical appropriation there are 35 officers.

Mr. KELLEY. Have you the grades?

Commander HILL. No, sir; I could put that in the record with the likes of the officers.

Mr. KELLEY. You need not put in the grades, just the number.

Commander HILL. I can tell you the various sections coming under this office. I do not know whether you understand just what it covers.

Mr. KELLEY. If you will put a short statement in the record that I save time.

NOTE.—The divisions concerned are: Chief's office; war plans division, policy liaison section, chief clerk's office, confidential files, ship movements division, material division, gunnery exercises and engineering performances division, file room, submarine division, and naval districts' division.

Commander HILL. There is only one other thing. The work in this office will not be very much affected by any reduction in personnel. As a matter of fact, the more the operating appropriations are reduced the more work it throws on us, because we will have to pick up very much more carefully on the movement of the ships in order to keep within the reduced appropriations. The more you reduce the appropriations the more work it means for the administering these appropriations on the operating part.

Admiral COONTZ. The Chief of Naval Operations has within the past year, commencing in July, had to take over an enormous amount of budget work, and it has been done without any increase in the fiscal force; on the contrary, I propose to reduce the total force about 6 per cent for the next fiscal year.

THURSDAY, MARCH 23, 1922.

OFFICE OF DIRECTOR OF NAVAL COMMUNICATIONS.

STATEMENT OF COMMANDER L. NOYES, DIRECTOR.

SALARIES.

Mr. KELLEY. You have this year for your statutory roll \$150,000? Commander NOYES. Yes, sir.

Mr. KELLEY. And you are asking for how much for next year?

Commander NOYES. \$134,300, sir.

Mr. KELLEY. This is the radio business?

Commander NOYES. Yes, sir.

Mr. KELLEY. And the telephone and telegraph?

Commander NOYES. Yes, sir; the handling of all the commercial accounts for the entire United States in addition to all the Government departments.

Mr. KELLEY. How many employees have you altogether?

Commander NOYES. Ninety-four, sir.

Mr. OLIVER. How many of those are enlisted men?

Commander NOYES. None, sir.

Mr. OLIVER. All civilians?

Commander NOYES. Yes, sir. This is a reduction of 13 from this year, \$15,700 from the current year, but \$8,500 of that is transferred, the actual reduction is \$7,200.

Mr. OLIVER. What is the pay of the 94 civilian employees?

Commander NOYES. \$134,300. There are no increases, only decreases.

TELEGRAPH OPERATORS.

Mr. KELLEY. Do you have to have all of these telegraph operators?

Commander NOYES. Yes, sir.

Mr. KELLEY. How many telegraph operators have you?

Commander NOYES. 17 this year and 16 next year. That includes the chief telegrapher and the telegraph supervisors.

Mr. OLIVER. What proportion of your business is commercial?

Commander NOYES. In the Navy Department?

Mr. OLIVER. In this particular department.

Commander NOYES. There is a great deal of work in a commercial sense which we have to perform for the other Governments and for the United States as a whole. The International Radio Telegraph Convention requires one office in each country to clear the radio accounts of all ships of that country. After a conference of State, Commerce, and Navy Departments in 1913, this work was assigned to the Navy Department to carry out the treaty.

Mr. OLIVER. What part of your work is not strictly naval?

Commander NOYES. That is a part of the work.

Mr. OLIVER. What proportion does that bear to the naval service which you perform; is that strictly naval work?

Commander NOYES. No, sir. It was assigned to the Navy Department by this treaty which the United States is bound to.

Mr. OLIVER. Does that constitute the larger part of the work?

Commander NOYES. I should say one-quarter.

Mr. KELLEY. Is your telegraph office open all night?

Commander NOYES. Yes, sir.

Mr. KELLEY. How many operators are there during the night?

Commander NOYES. It is on a sliding scale. Each man works eight hours a day—the civilian employees. They come on at different hours, so at the time of the greatest load there will be the most on. The result is that they vary in time. For instance, at 4.30 they will be like that [indicating], so that the peak load will be covered by the largest number of operators.

Mr. KELLEY. Is it necessary to have the office open all night?

Commander NOYES. Yes, sir.

Mr. KELLEY. Did you do that before the war?

Commander NOYES. Yes, sir.

Mr. KELLEY. How many operators did you have before the war?

Commander NOYES. I was not here at that time. I would say that they had—

Mr. KELLEY (interposing). Mr. Curtis might be able to tell!

Mr. CURTIS. No; I do not know the number. I can put that in the record.

Mr. KELLEY. It was not more than one?

Commander NOYES. Before we entered the war? Yes, sir.

Mr. KELLEY. I mean before 1914.

Commander NOYES. Originally there was one operator in the Navy Department. The various offices did their business individually.

Mr. KELLEY. And they got their telegrams from the main office sent out to them?

Commander NOYES. Yes, sir.

Mr. KELLEY. And they did not deliver the messages from the central office until morning, probably?

Commander NOYES. No, sir.

Mr. KELLEY. It seems like a large number—17 operators?

Commander NOYES. One point in connection with that, the Navy Department at that time did nothing in connection with the other Government departments. Now we handle for all the Government in Washington an increased amount of their business by radio and by leased lines, which amounted to \$1,000 last week.

Mr. KELLEY. What do you do with the messages which come in after office hours?

Commander NOYES. The officer on watch, if it requires action, calls up the appropriate officer of the Navy Department by telephone.

Mr. KELLEY. At his house?

Commander NOYES. Yes, sir.

Colonel ROOSEVELT. That is done quite often. I have been called up at all times on various matters.

Commander NOYES. Before the war, the department was closed at night. At the time when the *Maine* was sunk in Habana Harbor the telegraph company did not deliver the message until the next morning.

Mr. KELLEY. You need 17 operators?

Commander NOYES. Sixteen.

Admiral COONTZ. You have made a reduction this year of how much?

Commander NOYES. \$7,200, 6 per cent, although the work has increased rather than decreased.

THURSDAY, MARCH 23, 1922.

OFFICE OF NAVAL INTELLIGENCE.

STATEMENT OF COMMANDER R. E. INGERSOLL.

SALARIES.

Mr. KELLEY. You had a statutory roll of \$16,500 last year. How much do you want this year?

Commander INGERSOLL. The estimates for this year were \$17,650 for the same number of clerks. Two hundred dollars of the increase is accounted for by the transfer of an \$1,800 clerk to the office of Naval Intelligence and by the transfer of a \$1,600 clerk to the Secretary's office. This does not involve any change in the total for the Navy Department. There is an increase of \$950 in the salary of the chief clerk to bring his salary up to compare with that of the chief clerks of other offices in the Navy Department like the Hydrographic Office, Naval Observatory, and others, which, I believe, was approved by the Budget Officer and the Secretary. The present chief clerk of the Office of Naval Intelligence has been there 34 years and he has had no promotion in 20 years.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You have a lump sum this year of \$15,000. How much are you asking for next year?

Commander INGERSOLL. We ask this year for \$13,380, which is a reduction of \$1,620, or more than 5 per cent. That will be for 11 clerks.

Mr. KELLEY. Do you have any special representatives of your office in foreign countries?

Commander INGERSOLL. Not under these rolls. All of these clerks are in the Washington office.

Mr. KELLEY. Your representatives abroad are carried under Pay of the Navy?

Commander INGERSOLL. They are all carried under Pay, miscellaneous.

Mr. KELLEY. Do you have any special sorts of investigations that you did not undertake before the war, or have you discontinued all of your war investigations in the United States?

Commander INGERSOLL. This estimate does provide for information at home or abroad. This is all for the office work here in the Navy Department Building in Washington.

Mr. KELLEY. The Naval Intelligence work on the outside is carried—

Commander INGERSOLL (interposing). It is all carried under the appropriation Pay, miscellaneous.

Mr. KELLEY. This is merely for the clerical end of it?

Commander INGERSOLL. Yes, sir; right here in the Navy Department Building.

THURSDAY, MARCH 23, 1922.

BUREAU OF ENGINEERING.

STATEMENT OF REAR ADMIRAL JOHN K. ROBISON, CHIEF.

SALARIES.

Mr. KELLEY. Admiral, you have this year \$39,390 for your statutory roll. How much are you taking off for next year?

Admiral ROBISON. We ask for the same amount as last year, with the following exceptions: An increase in the chief clerk's pay from \$2,250 to \$3,250. Whether, or not you find it practicable to grant that, I feel that it is my duty to invite your attention to the fact that this man is worth that money and more, and that he saves his pay several times during the course of the year. Second, I decrease the number of \$1,600 clerks from five to four, and the number of \$1,200 clerks from seven to five, to allow for transfers to the office of the Secretary and to the Bureau of Aeronautics. Other than these transfers there were no decreases in the statutory roll.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You have a lump-sum appropriation of \$100,000 this year, and you are asking how much?

Admiral ROBISON. We are asking \$80,000. That appears to be a considerable decrease; but that decrease is not entirely a saving. As

shown by the record, some of them are transfers, but there is a very considerable net decrease.

Mr. KELLEY. How many clerks have you, all told?

Admiral ROBISON. We had last year 118, and we have now on the bureau's rolls 94.

Mr. KELLEY. And you are asking for how many?

Admiral ROBISON. Sixty-eight on the lump-sum roll and 28 on the statutory. I will say further, Mr. Chairman, that if I find it possible to make a cut in that number I will do so.

Mr. KELLEY. What is your opinion about that? Do you think you will be able to do that?

Admiral ROBISON. I intend to do so. This appropriation, I think, and, perhaps, well be compared by adding the two figures with the expenditures for 1916 or 1917. It is considerably larger; but we are undertaking to do considerable additional service to what we were doing then. When you make the comparison I would invite your attention to that fact. In the first place radio has expanded, as we know; second, there has been introduced a system of sound work, about which you have heard but little, but with which we are doing some rather remarkable things. In addition we are very much improving our service of information to the fleet as to methods and practices. That appears not so much on this page 64, for salaries of clerks, as under the head of the limitation for draftsmen and technical employees for the Navy Department on page 65.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

Mr. KELLEY. How much do you figure you can cut this item?

Admiral ROBISON. That item this year is \$190,000.

Mr. KELLEY. You should be able to make quite a little cut there, Admiral?

Admiral ROBISON. I expect to make some cut.

Mr. KELLEY. I notice that on February 14 you had 67 people on our technical roll.

Admiral ROBISON. Yes, sir; I think that limitation should be at least \$175,000. I have asked for \$184,000.

Mr. KELLEY. It seems to me that you could reduce somewhat in our bureau.

Admiral ROBISON. I have now under way 150 problems of design that are being handled by the technical force. If I do them—I own the methods, and I do not have to pay licenses when I buy material on account of patents. That means the saving of a considerable sum. There are 150 problems under consideration and most of them are problems pertaining to the simplification of the means of operation. I am speaking of radio work chiefly.

Mr. KELLEY. You had 26 technical people before the war?

Admiral ROBISON. We have 67 now and the only reason we have more than that is because I have not yielded to insistence on the part of other people. They are performing a very difficult service, and some of them are very important. They, I think, are vital if we are to be successful.

Mr. KELLEY. Does this number 67 include your inspectors?

Admiral ROBISON. Out in the field; no, sir.

Mr. KELLEY. These are people in the office?

Admiral ROBISON. The inspection force has been cut within the last four months by approximately \$150,000. It is now comparable with the pre-war figures.

Mr. KELLEY. You would like to have these technical people go along?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. For that you want \$175,000?

Admiral ROBISON. I do not think you could afford to go below that. We have asked for \$184,000.

Mr. KELLEY. That is pretty large.

Admiral ROBISON. You can cut that if you will; but, if you do, it will cost in other places much more. These are the men I am using to find means by which I can save money, and they are successful. They have been weeded out and I have no worthless men there.

THURSDAY, MARCH 23, 1922.

BUREAU OF CONSTRUCTION AND REPAIR.

STATEMENT OF REAR ADMIRAL DAVID W. TAYLOR, CHIEF.

SALARIES.

Mr. KELLEY. You have \$59,830 for your statutory roll: How much are you asking for next year?

Admiral TAYLOR. Just enough increase to raise the pay of the chief clerk, Mr. Chairman.

Mr. KELLEY. I do not suppose we have jurisdiction of that here. We passed a resolution not to increase salaries pending this reclassification. While it is a hardship, and while I know that these clerks are valuable, I am afraid that we can not do it.

Admiral TAYLOR. I have been asking you to raise the pay of that chief clerk for seven years. He is absolutely entitled to it, and he is very much underpaid for the work that he does.

Mr. KELLEY. In all other respects your estimate is identical with the appropriation for the present year?

Admiral TAYLOR. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. You have a lump-sum appropriation of \$80,000: You are cutting that down how much?

Admiral TAYLOR. To \$56,530. That is largely due to the fact that we transferred 15 men to the Bureau of Aeronautics. The real cut based upon what we retained, is from \$63,370.

In connection with the clerical force, I would like to call your attention again to the diagram showing the way our work has gone up and down and how the force has gone up and down. That chart shows the new numbers of correspondence and that is a fairly accurate gauge of the work coming in and going out of the Bureau. You will observe how the line went up during the war, and that shows that our numbers have gone down steadily as the work has

one down. We dropped there, as you will see, when the Bureau of Aeronautics took over a part of the work and part of our people.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

Mr. KELLEY. You are asking how much this year for your technical list?

Admiral TAYLOR. For the technical list the estimate was \$214,000.

Mr. KELLEY. That number was 74 on February 14.

Admiral TAYLOR. We had \$275,000 last year, and 25 of the force have been transferred to the Bureau of Aeronautics.

Mr. KELLEY. Have you transferred some since the 14th of February?

Admiral TAYLOR. No, sir; not since the 14th of February.

Mr. KELLEY. This number here shows 74, making a total of 200,620.

Admiral TAYLOR. Yes, sir; that is correct. The estimate, I think, was \$214,000, but at the present time we are spending at the rate of \$200,000. I would like to invite special attention to the fact that on the 1st of March we had two less on the technical list than we had on the 1st of July, 1916. At that time we had 76, and now we have 74.

Mr. KELLEY. You want about \$200,000?

Admiral TAYLOR. \$200,000 will cover the present force.

THURSDAY, MARCH 23, 1922.

BUREAU OF ORDNANCE.

STATEMENT OF REAR ADMIRAL CHARLES B. McVAY, JR., CHIEF.

SALARIES.

Mr. KELLEY. Admiral, you had this year \$31,830 for your statutory roll.

Admiral McVAY. The estimate for next year is \$32,830, which includes \$1,000 recommended for the chief clerk, who has been in the Bureau for 40 years.

Mr. KELLEY. If that is not granted—

Admiral McVAY (interposing). It will be the same as last year.

Mr. KELLEY. That is your statutory roll?

Admiral McVAY. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For your additional employees, what is the estimate?

Admiral McVAY. The estimate for the additional employees is reduced from \$40,000 to \$36,400.

Mr. KELLEY. Does that mean a reduction or transfers?

Admiral McVAY. There were no transfers, and it is a reduction. That makes a reduction of three positions at \$1,200, and two of them are already vacated.

Mr. KELLEY. You have in all in your office how many employees?

Admiral McVAY. Fifty-four clerks, and there are 24 technical men. The estimate for next year is the same as the appropriation for this year.

DRAFTSMEN AND OTHER TECHNICAL EMPLOYEES.

Mr. KELLEY. You have a limitation of a certain amount here?

Admiral McVAY. We have a limitation of \$70,000.

Mr. KELLEY. That is the amount you want for next year?

Admiral McVAY. Yes, sir. We can not reduce this amount at all. We have reduced it as far as we can.

Mr. KELLEY. I do not suppose there is much comparison between your bureau and what it was before the war?

Admiral McVAY. Before the war we had a great deal of this work done at the navy yards and stations, but now we do our original design work in the bureau, where the officers have the technical forces convenient. Then we go over all the new construction and check installations on new ships.

Mr. KELLEY. The exact amount is \$64,970.

Admiral McVAY. It is \$67,349 to-day. One place was vacant and was filled by a transfer. It is now \$67,349.28.

Mr. KELLEY. You think that the difference between your technical service now and that before the war is due to the fact that a good deal of it was done at the navy yards, whereas the bulk of it is now done in the bureau?

Admiral McVAY. Our design work is done here, that is, the original design work. The working drawings are made at the navy yard and stations.

MONDAY, MARCH 20, 1922

BUREAU OF AERONAUTICS.

STATEMENTS OF REAR ADMIRAL WILLIAM A. MOFFETT (CHIEF),
LIEUT. COMMANDER R. M. GRIFFIN, COMMANDER E. S. LAM,
COMMANDER T. G. ELLYSON, AND MR. B. B. MOORE, BUREAU OF
MINES.

REORGANIZATION OF BUREAU.

Mr. KELLEY. Admiral, have you any brief general statement which you would like to make before we take up the details of your estimate, about the situation as a whole?

Admiral MOFFETT. I would like to state that we thought, even considering the financial situation, that we were justified in asking for \$21,500,000. That was later on cut, when the Budget was made to \$17,000,000. This year we were cut from last year's appropriation (\$20,000,000) to \$13,413,431. We have gotten on this year, doing the best we could with the money. We have done that by cutting down activities and not spending a cent on shore that was not considered absolutely necessary, or something that led directly to activities, getting the planes in the air and getting away from shore activities as much as possible.

Mr. KELLEY. How about the organization of your new bureau; how is it working out?

Admiral MOFFETT. The bureau went into actual operation the 1st of September last. We employ in the bureau seven less officers than we did before, and we have, I think, one clerk less—that is, in the bureau itself—than we had before. We expected to save more, as a matter of fact, but when we got actually into operation we found that most of the people that were transferred to us were those who had occupied the minor positions in aviation affairs. There were many other people in the department under the different bureaus who were really doing some aviation that were not transferred to us.

Mr. KELLEY. Do you have a statutory list of your bureau or do you pay the clerks from the lump sum?

Commander GRIFFIN. The law says that the people, in the discretion of the Secretary of the Navy, performing aviation duties in the different bureaus were to be transferred to the Bureau of Aeronautics.

Mr. KELLEY. You pay them out of a lump sum, or do they receive statutory salaries?

Commander GRIFFIN. The clerks transferred to us are paid this year out of the other bureaus' appropriations.

Mr. KELLEY. Are the salaries fixed by law or are they paid out of lump sum?

Commander GRIFFIN. I think the salaries as transferred were fixed by law. I think the Secretary can change that.

Mr. KELLEY. I was asking whether or not you had a statutory list, certain people at salaries fixed by law?

Commander GRIFFIN. The chief clerk in the bureau is one.

Mr. KELLEY. That is the only employee whose salary is fixed?

Commander GRIFFIN. No, sir; there are four others.

Mr. KELLEY. How are the other salaries fixed?

Commander GRIFFIN. We have no discretion in the matter; we received these employees from other bureaus.

Mr. KELLEY. Did you take them at the salaries they were receiving before?

Commander GRIFFIN. Yes, sir.

Admiral MOFFETT. We brought that up by writing a letter which was sent to you some time ago and in which we asked to be allowed \$1010. The Budget went in at \$43,000. That was gotten up in a great hurry; we had to get our reports in.

Mr. KELLEY. Then, you took these employees from the other bureaus?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And transferred them to your bureau at the same salaries they were receiving?

Admiral MOFFETT. That is right.

Mr. KELLEY. If they were statutory employees in the other bureaus you carry them on your roll as statutory employees?

Commander GRIFFIN. We never had a roll. They are paid by the old bureaus of the Navy Department.

Mr. KELLEY. And when your bureau was organized you paid them from your bureau?

Commander GRIFFIN. No, sir. We have had their services, but they have been paid from their old bureaus.

Mr. KELLEY. When you start in the 1st of July you intend to pay them yourself?

Commander GRIFFIN. Yes, sir. That appears in the bill. The total of \$43,000 was submitted for the Budget a few days after we went into action and before all the employees were transferred to Aviation.

Admiral MOFFETT. There was a letter written to you. There was an effort made by the chief clerk, Mr. Curtis, to try to make the salaries compare with the other bureaus. We had no leading people. For instance, the different bureaus transferred to us low-salaried people. We had to get on the best we could with what they gave us.

CIVILIAN OFFICE FORCE—SALARIES.

Mr. KELLEY. You have a chief clerk at a salary of how much?

Commander GRIFFIN. At the present salary of \$2,250. The provision proposed in the bill is that all chief clerks shall be increased to \$3,250.

Mr. KELLEY. You have submitted an estimate for one financial clerk at \$2,400, one correspondence clerk at \$2,000, one file clerk at \$2,000, and one stenographer at \$1,800?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Have you those positions now in the bureau?

Admiral MOFFETT. No, sir; we have not the financial clerk. We have people performing those duties.

Commander GRIFFIN. The present person performing the duties of financial clerk is getting \$1,200 a year.

Mr. KELLEY. You have some one in the bureau doing the work which you propose to have done by this financial clerk?

Commander GRIFFIN. I do this work, assisted by a \$1,200 clerk.

Admiral MOFFETT. The other bureaus have permanent financial clerks, and I think it is important to have one permanently and keep the financial accounts of all of our appropriations, and so forth.

Mr. KELLEY. When the bureau was organized you were authorized to have a chief clerk?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And then you were authorized to have such other help as the other bureaus doing this work should detail to you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What authority have you, under the law, to create other positions??

Commander GRIFFIN. It is a question of the construction of the law. The law says that the Secretary is authorized to make these transfers.

Admiral MOFFETT. The act of July 12, 1921, provides, that—

The Secretary of the Navy is authorized to transfer to the Bureau of Aeronautics such number of the civilian, technical, clerical, and messenger personnel, together with such records, equipment, and facilities now assigned for aeronautic work under the various bureaus of the Department of the Navy or Marine Corps as in his judgment may be necessary.

Mr. KELLEY. They have been assigned now and your bureau is set up?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Does not that fix your status?

Admiral MOFFETT. No. The other bureaus, with few exceptions, gave us just as little as they could. They said that they could not get along. They gave us just as few as they could, the low-salaried clerks, and we have gotten on with them as best we could. This is an effort to reorganize the clerical force of the bureau so that we will be on a par with the other bureaus.

Mr. KELLEY. When these clerks were transferred, did they bring their files with them?

Commander GRIFFIN. Yes, sir; most of them were stenographers and typists.

Mr. KELLEY. What you want is a lump sum of \$56,010 for clerical force?

Admiral MOFFETT. Instead of the \$43,310.

Commander GRIFFIN. But we do not want to pay the salaries at once. We do not have any intention of immediately filling those positions.

Mr. KELLEY. If this extra \$1,000 is not given to the chief clerk, what about the other salaries? You would not want to pay the chief clerk \$2,250 and the financial clerk \$2,400?

Commander GRIFFIN. No, sir. We have nobody at present drawing that salary.

Mr. KELLEY. \$2,400?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. What is your present pay roll?

Admiral MOFFETT. \$52,750.

Mr. KELLEY. Upon what basis was this cut made to \$43,000?

Commander GRIFFIN. It was not cut. This figure went into the Budget Department the 4th of September. The clerks were not transferred instantaneously on the 1st, when the Bureau of Aeronautics was formed. Thirty-five clerks were transferred, the other bureaus finding everybody they thought they could. Then they sent four additional clerks who arrived too late to get into the Budget.

Mr. KELLEY. What is the total number of clerks now?

Commander GRIFFIN. Forty-four, including clerks loaned, and one vacancy.

Mr. KELLEY. And your total pay roll per month is how much?

Admiral MOFFETT. This includes the people who are loaned to us, \$2,750—charitably loaned to us.

Mr. KELLEY. That is what your yearly pay roll would be with the present force?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And you would like to provide four supervisory positions?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. Which would amount to how much in addition?

Commander GRIFFIN. \$8,200.

Admiral MOFFETT. No; only \$5,000.

Commander GRIFFIN. It does not check because the present pay roll includes clerks loaned in addition to those transferred.

Mr. KELLEY. If we do not increase the salary of your chief clerk the balance will be \$55,010?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. If you are not going to fill the financial clerk's position we could take out \$2,400 more?

Commander GRIFFIN. No, sir.

Mr. KELLEY. How much?

Commander GRIFFIN. We would not want you to take out the financial clerk's position. Unless we are going to discharge people we have now we will have to have \$52,750.

Mr. KELLEY. That is your present pay roll?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. What you are asking is \$55,010 and \$1,000 extra for the chief clerk?

Commander GRIFFIN. That is it.

Mr. KELLEY. Have you followed in your estimates for this year the language of the bill closely as it was authorized last year?

Admiral MOFFETT. The wording is pretty much the same, but we have lumped it so it would be similar to the other bureaus.

Mr. KELLEY. It is very difficult to make exact comparisons unless you follow the appropriations that have been made heretofore.

Admiral MOFFETT. The details are given later on page 127.

EXPENSES INCIDENT TO PERSONAL SERVICE.

Mr. KELLEY. Suppose we take up item No. 2, "For expenses incident to personal services; for aviation, clothing; for lodging, clothing, subsistence, etc.," \$50,000. What are the details of that item?

Admiral MOFFETT. We explain it pretty much in detail there. The items are: For aviation clothing, \$20,000; for lodging, clothing, subsistence, and expenses incident to flights in aircraft, and payments in settlement of expenses in connection with the safekeeping, packing, and shipping of aircraft landed away from ship or station, \$20,000; and for incidental expenses for ships, stations, inspectors' offices, such as photographing, technical books and periodicals, stationery, supplies, and instruments, \$10,000.

Mr. KELLEY. What did you pay this item out of last year, or what are you paying it out of now?

Commander GRIFFIN. Out of maintenance.

Mr. KELLEY. That is a part of maintenance, repair, and operation?

Admiral MOFFETT. We paid it this year out of maintenance.

Mr. KELLEY. There is an item in the current appropriation act of \$49,250 for navigational, photographic, and aerological equipment, including repairs thereto, for use with aircraft built or building on June 30, 1921. Where is that included?

Commander GRIFFIN. That is included under several subheads.

Mr. KELLEY. This item 2 is a new item entirely?

Commander GRIFFIN. Yes, sir. Of course, we pay that expense right along.

Mr. KELLEY. How do you arrive at the figure of \$50,000, or what do you base that on?

Commander GRIFFIN. We put that in before the bureau was formed, and it was based on very inadequate information. I think the present indication is that it should be more. That is the reason why this method was introduced. When these expenses get mixed up in an item of four or five million dollars, they get lost in the shuffle.

Mr. KELLEY. I wish you had stuck to the language of last year's. It would make it easier. This appropriation is made in lump sum, anyhow, is it not?

Commander GRIFFIN. Yes, sir; it always has been.

Mr. KELLEY. Suppose we start on page 124 of the bill. Can you give us a statement of what you want that is fairly equivalent to that first paragraph for aircraft and accessories in course of construction and manufacture?

Admiral MOFFETT. We have put in there \$250,000.

Mr. KELLEY. Give us the details of that.

Admiral MOFFETT. This year we have \$440,000. We cut that because when we made an estimate of \$21,500,000 we were told to cut \$4,500,000. Therefore we went over the estimates and cut it where we thought it would do the least harm.

COST OF CONSTRUCTION OF GIANT BOAT AND "ZR-1."

Mr. KELLEY. What aircraft have you under construction now?

Admiral MOFFETT. The ZR-1 and the giant boat.

Mr. KELLEY. The ZR-1 is under construction?

Admiral MOFFETT. Yes, sir; the giant boat has been stopped in order to save expense. We stopped that boat, but I would like to finish it. That giant boat was stopped because we did not have the money.

Mr. KELLEY. How much did you ask for originally under this item \$400,000?

Admiral MOFFETT. I have not that information with me.

Mr. KELLEY. How much will it take to finish the ZR-1?

Admiral MOFFETT. It will require \$400,000 next year.

Mr. KELLEY. Have you any balance on hand?

Admiral MOFFETT. Yes, sir; we have some now.

Mr. KELLEY. How much is your balance?

Admiral MOFFETT. The last balance on that appropriation, I think, about \$200,000.

Mr. KELLEY. You have not used much of that?

Admiral MOFFETT. The ZR-1 is largely under contract for material, and we are employing a few men to fabricate her material in the factory. We have reached the point where we can employ a few men to start her erection at Lakehurst. That is what we are going on with what is left of the appropriation now.

Mr. KELLEY. How much will it take to finish her?

Admiral MOFFETT. About \$400,000.

Mr. KELLEY. From this point on?

Admiral MOFFETT. No, sir; from the 1st of July.

Mr. KELLEY. You will spend \$300,000 between now and the 1st of July?

Admiral MOFFETT. I hope so. We will probably spend \$200,000, between two and three hundred thousand dollars.

Mr. KELLEY. You will spend all of the balance of this fund in during the balance of this fiscal year?

Admiral MOFFETT. I hope so; yes, sir.

Mr. KELLEY. What is her exact condition now?

Admiral MOFFETT. She is being fabricated at the factory. Her pieces are being fabricated and then transferred to Lakehurst, where she will be put up in the hangar at Lakehurst.

Mr. KELLEY. How much has been spent on her up to date?

Admiral MOFFETT. About \$1,500,000.

Mr. KELLEY. Give us the exact amount.

Admiral MOFFETT. We had spent to January 31, 1922, \$1,200,000 and we have spent or obligated up to date \$1,400,000. It will cost \$600,000 more to complete her.

Mr. KELLEY. You have spent or obligated \$1,400,000 on her?

Admiral MOFFETT. Yes, sir; that much or more.

Mr. KELLEY. You have either spent or obligated that amount?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. It will take \$200,000 more?

Admiral MOFFETT. \$200,000 this year and \$400,000 next year.

Mr. KELLEY. Besides the \$1,400,000?

Admiral MOFFETT. Yes, sir. The total cost will be \$2,000,000.

Mr. KELLEY. Then, up to the 1st of July you expect to expend \$1,600,000 on her?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Then you want \$400,000 with which to finish her next year?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Then, how will \$250,000 finish it?

Admiral MOFFETT. It will not finish it.

Mr. KELLEY. Will it run on another year?

Admiral MOFFETT. No, sir. What we will try to do will be to save something here and there from other items. We try to follow the subheads as far as we can, because we take that as an indication that the members of the committee want us to spend it according to the subheads.

Mr. KELLEY. Where there is an item carried for which you know exactly how much money will be required, would it not be better to write that amount in the bill and reduce some other amounts that are uncertain? If you know that you can spend \$200,000 that you have on hand between now and the 1st of July, and that it will take \$400,000 next year to finish it, why would it not be better to give you \$400,000 in this item rather than the \$250,000 you have asked for with a view to squeezing it out of some other item?

Admiral MOFFETT. That is all right, if you take it off somewhere else, but that estimate was made up last July.

Mr. KELLEY. It will not cost more than \$400,000 to finish it, will it?

Admiral MOFFETT. I hope not; no, sir.

Mr. KELLEY. How much have you left out of the giant-boat allowance?

Admiral MOFFETT. The giant boat was supposed to be finished at the end of the \$440,000, but we stopped work on her because we thought the ZR-1 was more important.

Mr. KELLEY. Were you building the giant boat out of the \$440,000?

Admiral MOFFETT. It happened to be but partly completed at the 1st of July, and the intention was to take her up and finish her but when the necessity came for cutting down, we stopped work on her so as to spend the money where it was more needed.

Mr. KELLEY. Which one of these items were you charging the expenses of the giant boat against? Have you spent anything on the giant boat at all?

Admiral MOFFETT. Yes, sir; the power plant is completed and cost, with the original experimental engineering investigations and data, about \$150,000; only about \$50,000 worth of work has been done on the hull; the original estimated cost of the giant boat complete was about \$450,000.

Commander GRIFFIN. The work was stopped on her last fall.

Mr. KELLEY. Do you know what funds you were building her out of?

Admiral MOFFETT. I think in the beginning the funds came from new construction and experimental subheads.

Mr. KELLEY. Not out of the appropriation for aircraft that was under construction?

Admiral MOFFETT. No, sir.

Mr. KELLEY. Was not that giant boat started quite a long time ago?

Admiral MOFFETT. I think two years ago.

Mr. KELLEY. Then it would be under this item for aircraft under construction on June 30, 1921, would it not?

Admiral MOFFETT. Yes. I know that when I came here, and I have been here a little over a year, this appropriation was cut to \$3,413,000, and I was saving in every way, and that was one of the savings we made.

Mr. KELLEY. You do not want to do anything on her this coming year?

Admiral MOFFETT. Not with the money we have got.

Mr. KELLEY. If we gave you \$400,000 for this purpose you would spend all of it on the ZR-1?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What will you fill the ZR-1 with when you get her built?

Admiral MOFFETT. We will fill her with helium.

HELIUM—AMOUNT ON HAND AND CONTROL OF PLANT.

Mr. KELLEY. How much helium have you on hand?

Admiral MOFFETT. We have 2,400,000 cubic feet.

Mr. KELLEY. How much will it take to fill her bag?

Admiral MOFFETT. Two million one hundred and fifteen thousand cubic feet.

Mr. KELLEY. Who owns that helium—you or the Army?

Admiral MOFFETT. Both of us. That is to say, all of the expenses for helium have been paid jointly by the Army and Navy, on a 50-50 basis.

Mr. KELLEY. Is the Army turning over to you all of the lighter-than-air work?

Admiral MOFFETT. No, sir.

Mr. KELLEY. Are you turning that work over to them?

Admiral MOFFETT. No, sir. The lighter-than-air situation is this: That the development and procurement of rigid airships was allotted to the Navy by an agreement between the Secretary of War and the Secretary of the Navy, as recommended by the joint board. Since then the Navy has been trying to carry that out. That includes the procurement of the ZR-2 and the development of the ZR-1, which is built in this country and started here. We have been doing that

work. It was agreed between the Secretary of War and the Secretary of the Navy that the helium should be developed jointly.

Mr. KELLEY. What I want to know is whether the Navy owns this helium?

Admiral MOFFETT. There is a factory at Fort Worth.

Mr. KELLEY. I know all about the factory, but who owns the helium?

Admiral MOFFETT. The Army and Navy both own it. They are entitled to one-half of it.

Mr. KELLEY. Will you put helium in this bag?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How do you know that?

Admiral MOFFETT. We have got to do it.

Mr. KELLEY. You own only half of it and you will not fill it enough?

Admiral MOFFETT. I think there is every indication of our going ahead with it. We have allowed \$250,000 in our estimate for going ahead next year, and the Army got \$400,000 in the bill as it is reported.

Mr. KELLEY. You have plenty of helium there owned by the Army and Navy to fill this bag?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. In other words, the Army has 2,400,000 cubic feet and the Navy has 2,400,000 cubic feet?

Admiral MOFFETT. No, sir. The Army and Navy together have a total of 2,400,000 cubic feet.

DESTRUCTION OF AIRSHIP "ROMA."

Mr. KELLEY. What was the name of the ship that was destroyed the other day?

Admiral MOFFETT. The *Roma*.

Mr. KELLEY. That was an Army ship, was it not?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I noticed in the newspapers that some Army officer said that the reason why that accident happened was because it was not filled with helium, and that the reason it was not filled with helium was because Congress had failed to appropriate the money. Is that true?

Admiral MOFFETT. No, sir; they have helium.

Mr. KELLEY. They had plenty of helium, but they did not put it in the sack?

Admiral MOFFETT. Yes, sir; she held about 1,200,000 cubic feet. They had more than enough to fill her.

Mr. KELLEY. You have enough to fill this ship?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. Where is that stored?

Admiral MOFFETT. We have it stored at Fort Worth in flasks.

Secretary DENBY. I want to go back to the *Roma* a minute. You know why they did not put helium in the *Roma*?

Admiral MOFFETT. No, sir; I do not. I think it was partly a question of expense. There was some considerable amount of leakage in the gas bags, I believe, and I think it was for that reason

cause of the expense. It now costs between \$83 and \$84 per thousand feet, while hydrogen costs about \$6 to \$10 per thousand feet. The leakage was about 30 per cent per month, or about 1 per cent per day in active flying operations. This leakage is very materially reduced if the ship is in the shed, when it falls to about 2 per cent per week.

Mr. KELLEY. Do you believe this new one that you are turning out will leak like that?

Admiral MOFFETT. We hope it will not. We are doing all we can to reduce the leakage. The leakage of helium is about two-thirds that of hydrogen.

Mr. KELLEY. They did not put helium in the *Roma* because they were not satisfied with the bag, and did not want to waste the helium?

Admiral MOFFETT. I do not wish to speak for the Army, but that is true.

Mr. KELLEY. They put hydrogen in the bag, and the accident followed?

Admiral MOFFETT. Yes, sir; and the loss of life was probably greater, due indirectly to the hydrogen.

Mr. KELLEY. They should court-martial that officer. How about the *ZR-1*?

Admiral MOFFETT. I would not send one up without being filled with helium. I think if we sent a large one up inflated with hydrogen gas and we had an accident it would be bad for us.

LOCATION OF ESTIMATE FOR CONSTRUCTION AND PROCUREMENT OF AIRCRAFT AND EQUIPMENT.

Mr. KELLEY. Let us turn to page 124 of the bill: For new construction and procurement of aircraft and equipment, how much are you asking?

Admiral MOFFETT. We have asked for \$6,631,450.

Mr. KELLEY. Have you a sheet showing how you want to spend that?

Admiral MOFFETT. I would like to tell you about the estimate. That estimate was gotten up last September, according to the details before you. Since then, while we have not asked for more, the sum total being the same, we have asked for a change in the details. The catapult has been successful, and we have great confidence in it. That estimate was based upon what the planes actually cost, or planes of the type that we put on board ship. It is based upon the total number they will need. As you will see, it is a little bit more.

Mr. KELLEY. More than the total estimate?

Admiral MOFFETT. Yes, sir. You will see that we estimate for planes afloat, for engines, etc., \$6,501,626. Now, with what we have on hand, or \$2,500,000, it would leave as the balance that we would need to have the sum of \$4,001,000.

Mr. KELLEY. You have estimated that you will need for new construction \$6,631,450?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And you will have on hand on the 1st of July how much?

Admiral MOFFETT. \$2,500,000.

Mr. KELLEY. To add to this amount?

Admiral MOFFETT. We will have that spent by the end of this fiscal year.

Mr. KELLEY. I want to know the details of this \$6,631,450.

Admiral MOFFETT. Instead of \$6,631,450, that figure can be reduced to \$6,501,625. That is what we estimate.

Mr. KELLEY. And you estimate the balance available on the 1st of July, 1922, at \$2,500,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. That leaves \$4,001,625 that you are asking for this purpose next year, is that right?

Admiral MOFFETT. Yes, sir. Now, then, that estimate, which was made some time ago, was based on 18 battleships.

Mr. KELLEY. Of this \$4,001,625, how much do you estimate will be required for aviation for the battleships?

FOR AIRPLANES AND BALLOONS.

Admiral MOFFETT. The first item is for fighting planes. We want 129 planes, and we have on hand 39. Therefore we want to get 90.

Mr. KELLEY. Ninety fighting planes?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How much will they cost?

Admiral MOFFETT. About \$1,080,000. We want 51 three-seater observation planes.

Mr. KELLEY. At what cost?

Admiral MOFFETT. \$1,020,000.

Mr. KELLEY. What else do you want?

Admiral MOFFETT. We want 40 one-seater observation planes, to cost \$280,000; we want 30 torpedo planes, to cost \$690,000; we want lighter-than-air kite balloons and balloons for the fleet to the amount of \$120,000.

Mr. KELLEY. How many do you want?

FOR ENGINES.

Admiral MOFFETT. Eight. For engines, we want Lawrence 200-horsepower engines—

Mr. KELLEY (interposing). How many do you want?

Admiral MOFFETT. One hundred and forty-four 200-horsepower engines.

Mr. KELLEY. One hundred and forty-four engines, at what cost?

Admiral MOFFETT. \$1,180,800. We want 88 Hispano engines, to cost \$550,000; 60 Lawrence 60-horsepower engines—

Mr. KELLEY (interposing). Are they included in the 144?

Admiral MOFFETT. No, sir; the 144 are 200-horsepower engines and these are 60-horsepower Lawrence engines.

Mr. KELLEY. How many do you want?

Admiral MOFFETT. We want 60 of those engines, to cost \$240,000.

Mr. KELLEY. What else?

Admiral MOFFETT. Eighty-one converted Liberty engines, at \$40,500. We have them, and the conversion will cost \$500 apiece.

Mr. KELLEY. Is that all of it?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What about spare parts?

Admiral MOFFETT. They come in underneath. We brought them in for structural and engine spare parts, the estimate is \$1,300,325.

Mr. KELLEY. What is the total of the other items?

Admiral MOFFETT. \$5,201,300.

Mr. KELLEY. That gives a grand total of \$6,501,625?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And you have \$2,500,000 on hand?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. This appropriation should be \$4,001,625?

Admiral MOFFETT. Yes, sir.

Commander GRIFFIN. We have that \$2,500,000 on hand, but we must spend it before the 1st of July, or it will be no longer available. That leaves \$4,000,000 as the amount needed for next year.

Mr. KELLEY. You will spend \$2,500,000 to apply on next year's requirements?

Commander GRIFFIN. Yes, sir.

Mr. BYRNES. You expect to spend that money upon ships which will not be completed until some time during the next fiscal year?

Admiral MOFFETT. Yes, sir. We have completed the plans to spend the money, and we are working on that now.

Mr. KELLEY. If we gave you \$4,001,625, it would supplement the and you have on hand now?

Admiral MOFFETT. Yes, sir.

NUMBER AIRPLANES ON HAND AND REQUIRED.

Mr. KELLEY. What do you want to buy 90 fighting planes for? Of course, these planes do not last more than a year, anyhow.

Admiral MOFFETT. I should say more than that; I think we can use them for two years. I would like to tell you about this catapult.

Mr. KELLEY. There is nothing in here about a catapult.

Admiral MOFFETT. No.

Mr. KELLEY. Then let us keep away from the catapult until we reach it.

Admiral MOFFETT. It has a bearing, because there is no use of putting planes on ships unless you get them off.

Mr. KELLEY. I know, and these planes are contingent upon furnishing catapults for the ships?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. We will not have any trouble about that—that is, a reasonable number of catapults, and I do not mean by that that you are asking an unreasonable number. How many fighting planes have you on hand now?

Admiral MOFFETT. We have 39.

Mr. KELLEY. And you want 90 more?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What is the condition of the 39?

Admiral MOFFETT. They are serviceable and we expect to use them.

Mr. KELLEY. That will give you 129.

Admiral MOFFETT. Yes, sir; but it is based on where we put them and what ships we put them on, etc. This plan is a part of a plan we have tried to work out, to cover the next five years, and, while

we can not get money that way, we have made a plan for five years and we are trying to ask each year what we need to ultimately carry out the whole plan.

Mr. KELLEY. How many three-seaters have you?

Admiral MOFFETT. We have 18.

Mr. KELLEY. How many one-seaters?

Admiral MOFFETT. We have none.

Mr. KELLEY. How many torpedo planes have you?

Admiral MOFFETT. We have 24, but they are not of the type we want—I mean we are improving them. We have gotten a new torpedo plane which is better than anything we have on hand now.

Mr. KELLEY. What is a torpedo plane?

Admiral MOFFETT. Well, it is a plane that is designed primarily to carry a torpedo of 1,650 pounds, and we have used some of the old planes we had on hand. The twin pontoon planes we now have are used for this purpose but they are not satisfactory, they are not economical, and they have not the performance we should have.

Mr. BYRNES. Has not the experience of the war enabled you to determine as to the most efficient bombing plane?

Admiral MOFFETT. Yes, Mr. Byrnes, but, you see, a plane is built around an engine and you can do so much with an engine, so that when we design a plane we must decide what horsepower we can use, and we have to take into consideration the engines we have. For instance, I can give you an example. We are building, and have successfully developed on the Pacific coast, a torpedo plane which we call the Douglass plane. She came up to all the test requirements, the test requirements for altitude, the test requirements for performance; that is, as to the consumption of gasoline and the distance it can go with its full load, and that is the first satisfactory torpedo plane we have had. The other planes were not primarily designed for that purpose.

Mr. KELLEY. How many have you?

Admiral MOFFETT. Well, we built three. Our practice is this: If we want a new plane we build three for trial purposes. The first one we expect to test to destruction, through the sand-load test, in order to see whether it is structurally strong enough; then we try one through actual performance in the air and then we have another one in case anything happens.

Mr. BYRNES. It does look to me as though the experience gained in the war and the tests to which the planes were subjected in the war would have furnished you with the necessary information to decide upon the best type.

Admiral MOFFETT. You are quite right, and that is what we have done.

Mr. BYRNES. Yet, you have built some which you think are not quite efficient.

Admiral MOFFETT. For instance, we have built what we call the F5-L and the R6-L, the twin pontoon plane—

Mr. BYRNES (interposing). When did you build them?

Admiral MOFFETT. They were built during the war, but they are old, and we have learned a great deal more since the war. They have been found by experimentation, through wind tunnel tests and actual tests, that with the same size plane you can get twice the lifting

wer, that is, with the same size plane you can lift twice as much redesigning and experimentation.

Mr. BYRNES. Then you have found out more about these things since war than was found out during the war when they were using them every day?

Admiral MOFFETT. I would not say that, but when the war came on they had practically no aviation, and they had to jump in and use what they had.

Commander ELLYSON. During the war they had no practical experience with torpedo planes, and it is a new development.

Mr. KELLEY. What do you do, just drop the torpedo in the water?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. It is a great thing, all right, and you want 80 of those?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Do they work pretty well?

Admiral MOFFETT. The one we had out there worked pretty well, but we have two more now being completed.

Mr. BYRNES. How many torpedo planes are you asking for?

Admiral MOFFETT. Thirty.

Mr. KELLEY. These are mostly to go on the ships, are they?

Admiral MOFFETT. Yes, sir! we are going to try to put some on board the ships.

Mr. KELLEY. That is a rather mild answer.

Admiral MOFFETT. There are two types of torpedo planes; there is one that is much heavier and that has a higher performance, but what we want to do is to use planes that can be carried on board ship. The same plane that carries a torpedo can be used for carrying bombs.

NUMBER AND KIND OF ENGINES ON HAND AND REQUIRED FOR 1923.

Mr. KELLEY. The engines you are asking for below are to go in these planes, are they?

Admiral MOFFETT. That is right; yes, sir.

Mr. KELLEY. You have 377 of them to go in 219 planes?

Admiral MOFFETT. Well, we must have spares.

Mr. KELLEY. As a reserve?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Are the spare parts for the improved planes and engines or for your old planes?

Admiral MOFFETT. Well, they will be for both.

Mr. KELLEY. I suppose this is accurately worked out?

Admiral MOFFETT. It has been accurately worked out; even the costs for gasoline, which we have here, are worked out, and the actual cost we have had to pay.

Mr. KELLEY. Most of the engines you now have are Liberty engines, are they not?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. You do not have to buy any spare parts for them, do you?

Admiral MOFFETT. We did have to buy some; yes.

Mr. KELLEY. Have you not great quantities of Liberty motors on hand?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Why do you not tear them down?

Admiral MOFFETT. That is what we are doing; but we are getting near the end of what we have.

Mr. KELLEY. I suppose it will not be very long before those engines will be out of date?

Admiral MOFFETT. They are practically out of date now. We have improved them by high compression; and the use of dope fuel has increased the horsepower of the Liberty about 10 per cent.

Mr. KELLEY. The only thing that strikes me about this list is that it looks like you are buying too many.

Admiral MOFFETT. Well, it is based on the ships we are going to put them on, and we actually expect to put them aboard ship.

Mr. KELLEY. Of the 90 fighting planes, how many would you expect to put on ships? If you can get the same general results in the way of training and experimentation without piling up your matériel so much it saves the Government quite a lot of money, and you do not have a lot of this old stuff on hand.

Admiral MOFFETT. Well, we have provided for planes on battleships, cruisers, oilers, store ships, transports, ammunition ships, hospital ships, etc.

Mr. KELLEY. I suppose if you get airplane carriers you will not have them on these ships?

Admiral MOFFETT. Yes; we would.

Mr. KELLEY. Just the same?

Admiral MOFFETT. Yes. We think you can put the fighter on a ship at all, on practically any type of ship, and that will do away with some of this terror about what bombs are going to do; bomb planes will do a great deal, of course, but if you have a fighter it is the answer to the bombing plane.

Mr. FRENCH. Are you developing apparatus on these different ships so that the fighters can land and also take off?

Admiral MOFFETT. They can not land but they can take off.

Mr. FRENCH. And that is why you need a catapult?

Admiral MOFFETT. Yes, sir; although I think we will land planes on battleships—that is, on redesigned battleships, in time.

Mr. KELLEY. What is your stock of Liberty motors now? Has the Army a great many of them stored about the country?

Admiral MOFFETT. The Army has no available Liberty spare parts available for use by the Navy. We asked for them; they say they will not spare them.

Mr. KELLEY. It seems as though they stored them in Arkansas. Why did they take them clear to Arkansas? Was it because they wanted to pay the increased freight or because they wanted to get them where they are safe?

Admiral MOFFETT. I think they have a flying field out there.

Mr. KELLEY. In Arkansas?

Admiral MOFFETT. Yes; I think so; perhaps not in Arkansas, but in that neighborhood. We have 3,020 Libertys and that includes everything; that is the total number now in the service. All except 870 are now in use or assigned as spares and have been used; the rest are new and in store. About 175 used engines have been disassembled for spare parts, and additional engines worn out or badly damaged.

also been disassembled and useful parts salvaged for spares. At 100 Liberty engines in stock are reserved to make it possible to obsolete airplanes. I do not think we will have the Liberty but a very few years longer.

r. KELLEY. Do you know how much you have in this \$1,300,000 spare parts for Libertys?

Commander GRIFFIN. Nothing.

r. KELLEY. This is for spare parts and mostly all for these new ones?

Commander GRIFFIN. Practically all for these new planes.

r. KELLEY. You have now given us \$4,001,625 as the amount necessary for new construction of planes, spare parts, and engines.

Admiral MOFFETT. Yes, sir.

SUPERVISION OF AVIATION FOR MARINES.

r. KELLEY. Have you any other new construction?

Admiral MOFFETT. Yes. We want a total for the marines of \$720,-

They want 12 fighting planes, or pursuit planes, as the marines Army call them—

r. KELLEY (interposing). They are the same thing, are they?

Admiral MOFFETT. Yes, sir; \$360,000; they also want 12 observation planes or reconnaissance planes at \$360,000, a total of \$720,000.

r. KELLEY. Why do they not get their planes from the Army? Army has plenty of these, has it not?

Admiral MOFFETT. We do get some and we get all they will let us, but sometimes we think we develop a better plane than the Army for our purposes. We think our pursuit plane is a little better than anything the Army has at present, for our uses.

r. KELLEY. Where are they going to use these planes?

Admiral MOFFETT. They are using them right now in Santo Domingo and Haiti. I believe the marines in Santo Domingo and Haiti are doing more in land aviation than any one in the world at present, perhaps, the commercial aviation between Paris and London. The military purpose of the plane is so that the marines will have aviation just as they have other branches. They have their bases in Haiti and Santo Domingo and also at Quantico, at least, the base immediately adjoining Quantico.

r. KELLEY. How many fighting planes have they now?

Admiral MOFFETT. Forty.

r. KELLEY. What is an observation plane?

Admiral MOFFETT. That is a scouting plane or a reconnaissance plane.

r. KELLEY. It seems to be quite an expensive plane, as these are about \$30,000 apiece.

Admiral MOFFETT. Yes; it is.

r. KELLEY. Is that a plane with a boat attachment?

Admiral MOFFETT. No; that is a land plane, sir.

Commander GRIFFIN. That is the average cost, Mr. Kelley.

r. KELLEY. These planes are not to be used in conjunction with the Army but for the independent expeditions of the marines?

Admiral MOFFETT. Yes, sir. While we are talking about the marines I would like to mention the fact that we pay for the marines' planes as for the Navy. They are included in our \$17,000,000.

Mr. KELLEY. The marines are a part of the Navy.

Admiral MOFFETT. Yes; that is right.

Mr. KELLEY. Did General Lejeune ask for these?

Admiral MOFFETT. Yes, sir; the request came through with approval.

Mr. KELLEY. Who is the head of aviation in the Marine Corps?

Admiral MOFFETT. Colonel Turner.

Mr. KELLEY. Is he under you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Do you appoint him?

Admiral MOFFETT. No, sir. He was there when I came here as a matter of fact the arrangement now is that when some one is going to be detailed for aviation we recommend it.

Mr. KELLEY. Do you have a section in your office for the Marine Corps?

Admiral MOFFETT. No; but he is very near us; his office is in the next wing to ours; he is in charge of the Marine Corps aviation. It happens that our offices are very close.

Mr. KELLEY. Does he have some employees who are not on the roll?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I thought you were at the head of the Bureau of Aviation.

Admiral MOFFETT. I am; I think he still uses some people of the Marine Corps, but I am not sure about that.

Mr. KELLEY. Then we have not accomplished what we set out to do, namely, to put aviation in the Navy in one place.

Admiral MOFFETT. Yes; you have, because he is practically with us, although he is not in the same room.

Mr. KELLEY. Physical closeness does not make any difference unless you have control over him and over what he is doing.

Admiral MOFFETT. We do have, but as the marines are a part of the base force—for instance, they are a part of aviation in the field and after it leaves us and goes out the personnel is actually controlled by Navigation and the Marine Corps, and our part is advisory. However, we keep in touch with what they are doing; we furnish them the money and we furnish them with the planes just the same as the Bureau of Ordnance furnishes them with guns; we furnish the marines with everything; we furnish them with planes, so on.

Mr. KELLEY. How can you furnish them with everything without inquiring into their needs?

Admiral MOFFETT. We do inquire into their needs and we know what their needs are. I see Colonel Turner very often, and he is as close to us as any other officer in the bureau; he is attached to the bureau under my direct orders and is a member of the plans division of aeronautics; they come to us and consult with us all the time and we give them their money. For instance, we pay for the run of Quantico.

Commander GRIFFIN. We control the money and that is where the control lies.

Admiral MOFFETT. He is no more separate from us than anywhere else and, as I say, they are furnished everything by the Navy.

Secretary DENBY. Except personnel.

Admiral MOFFETT. I mean their ordnance, for instance, is furnished by the Navy, and we furnish everything for aviation.

Mr. KELLEY. Then they have an office which handles their aviation as they handle their supplies?

Admiral MOFFETT. Their aviation is almost entirely personnel.

Mr. KELLEY. You furnish all the motors?

Admiral MOFFETT. Yes. We furnish them with machines, and we consult with them. Colonel Turner is not only near to us but he consults with us constantly, and he is as much a part of our bureau as any of the others.

Mr. KELLEY. But you do not pay any of the expenses of the Marine Corps aviation except for the material?

Admiral MOFFETT. We pay for all the material, all the gasoline, all the oil, and all the upkeep.

Mr. BYRNES. You supervise the administration of it?

Admiral MOFFETT. Yes, sir.

Mr. BYRNES. But you do not supervise the personnel?

Admiral MOFFETT. No, sir. For instance, take Quantico; we pay for Quantico—that is, the extension of Quantico Field—we pay for the hangars, we pay for the improvement of the field, and all of the things like that.

Mr. BYRNES. What do they pay for?

Admiral MOFFETT. I do not think they pay anything except the personnel.

Mr. BYRNES. Everything but the personnel is paid for by you and you control it?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Who is your immediate superior in the Navy?

Admiral MOFFETT. The Secretary.

Mr. KELLEY. He is the last one, but who is the next one above him?

Admiral MOFFETT. The next one above me is the Chief of Operations.

Mr. KELLEY. He controls the fleet and all of these various activities?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And tells you what he wants you to do in aviation of the fleet?

Admiral MOFFETT. Yes, sir; but we consult together. We get the things up and consult with him; we make suggestions to him.

Mr. KELLEY. But practically it goes that way—the suggestions come from you?

Admiral MOFFETT. Yes, sir.

Mr. BYRNES. They are only suggestions until he approves them?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Theoretically he tells you what he wants you to do, of course, he is subject to the orders of the Secretary of the Navy?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. Any differences would be settled by the Secretary of the Navy.

Mr. KELLEY. I was endeavoring to get the status of this new bureau.

Secretary DENBY. It is absolutely like the other bureaus.

AIRPLANES FOR SHORE STATIONS.

Mr. KELLEY. Is that all?

Admiral MOFFETT. No; there are the shore stations.

Mr. KELLEY. You are still on new constructions, are you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What do you say this is?

Admiral MOFFETT. These are the shore stations at Pearl Harbor, Coco Solo, and so on.

Mr. KELLEY. What are these—buildings?

Admiral MOFFETT. No; these are planes.

Mr. KELLEY. For those places?

Admiral MOFFETT. Yes; torpedo planes.

Mr. KELLEY. Some more planes?

Admiral MOFFETT. Yes, sir; on shore. We have only taken those afloat.

Mr. KELLEY. What is the sum total?

Admiral MOFFETT. \$50,000 apiece.

Mr. KELLEY. How many of them are there?

Admiral MOFFETT. There are 30, the total being \$1,500,000.

Mr. KELLEY. Thirty shore planes?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And they are to be distributed among various shore stations?

Admiral MOFFETT. Yes. They are estimated for Pearl Harbor, Coco Solo, the Panama Canal, and Guam.

Mr. KELLEY. And seven or eight at each place?

Admiral MOFFETT. Eighteen at the first place, eight at the second and—

Mr. KELLEY (interposing). What sort of planes are they?

Admiral MOFFETT. There are two kinds of torpedo planes—we make small and as light as possible, but sufficient to do the work so that it can be carried on board ship, and the other type we have to operate with a tender. The latter is very much more powerful; it has greater performance; its altitude is higher and it is a much heavier plane, weighing about twice as much. They are two distinct types.

Mr. KELLEY. What business have you with airplanes on shore?

Admiral MOFFETT. We have a great deal.

Mr. KELLEY. I thought that was all the Army work, to take care of the shore?

Admiral MOFFETT. They do take care of the shore, but I do not think they are fitted for the offshore work.

Mr. KELLEY. We are getting all piled up with the same general work being carried on by two or three different branches of service.

Admiral MOFFETT. I do not believe they are piling up on us. I do not think the Army should be doing any offshore work at all.

Mr. KELLEY. Is this offshore work?

Admiral MOFFETT. Yes, sir. These bombing experiments, sending land planes to sea, they may do that if a land plane is protected by destroyers every 10 miles. In peace times it is all right to send a land plane over the water, but personally I do not think—

Mr. KELLEY (interposing). You think the Navy should take care of the offshore?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. If the Navy takes care of that, what would the Army doing?

Admiral MOFFETT. They would have to look after the rest of it; at is my personal opinion. Another part would be scouting offshore.

Mr. KELLEY. Who has the legal control of the coast defenses?

Admiral MOFFETT. I think it is very much involved. The regulations say that the predominant force under the Army they will control and under the Navy the Navy will control; it depends on the particular circumstances.

Mr. BYRNES. Does not the Army operate offshore?

Admiral MOFFETT. No, sir.

Mr. BYRNES. If the Army operated offshore with land planes, what would be the result to the planes if they came down in the water?

Admiral MOFFETT. They would be lost.

Mr. BYRNES. Therefore, only seaplanes should be operated any distance offshore?

Admiral MOFFETT. Yes, sir. In time of war, I think that the land planes could do some work 50 miles off, but I think anything farther than that would be exceptional. The present arrangements under the regulations of the joint board are that the Navy is supposed to do the locating and scouting.

Mr. BYRNES. You have a joint board?

Admiral MOFFETT. Yes, sir; a Joint Board, and the scouting for an enemy would be a function of the Navy.

Mr. BYRNES. What do they say is the function of the Army in reference to the coast defenses as the enemy approaches the shore?

Admiral MOFFETT. I think they would use land planes if the enemy came close enough. I think that any over-the-water work could be done by seaplanes, as far as you possibly can.

Mr. KELLEY. How many airplanes has the Army at Coco Solo?

Admiral MOFFETT. I do not know. I think they have a few more than we have. They use land planes. Those land planes they use primarily over the land. Our force goes over the water.

Mr. KELLEY. But it is their idea that they can go out and scout for a long distance?

Admiral MOFFETT. I do not think so.

Mr. KELLEY. If they can fly a thousand miles over the land, why not they fly over the water?

Admiral MOFFETT. Because if they fly over the water and the engine stops, they must come down.

Mr. KELLEY. The same is true if they are flying over the land?

Admiral MOFFETT. They are trying now to get these landing fields so that they can fly safely over the land.

Mr. KELLEY. You want \$1,500,000 worth of airplanes for Coco Solo, Hawaii, and Guam?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How much at Guam?

Admiral MOFFETT. \$300,000.

Secretary DENBY. They are perfectly legitimate under the treaty.

Mr. KELLEY. What else do you want?

Admiral MOFFETT. The main thing is to get the \$17,000,000. you give us the total—

Mr. KELLEY (interposing). But we are interested in the details. Admiral MOFFETT. They are smaller ships.

ESTIMATE FOR LIGHTER-THAN-AIR CRAFT.

Mr. KELLEY. What is the rest of the new construction?

Admiral MOFFETT. A total of \$612,000 for lighter-than-air.

Mr. KELLEY. What is that for?

Admiral MOFFETT. One is a nonrigid.

Mr. KELLEY. How many of those?

Admiral MOFFETT. One.

Mr. KELLEY. How many lighter-than-air craft?

Admiral MOFFETT. Then we have five small nonrigid airships with the type of balloons they have.

LIGHTER-THAN-AIR CRAFT BEING BUILT BY GERMANY FOR THE NAVY.

Mr. BYRNES. Have we any ship being built abroad at this time?

Admiral MOFFETT. No, sir; we have none. There is one in the way—it has not been started. We are entitled to receive from the Germans, under the reparation, two. There has been a great deal of opposition as to this on the part of our friends, the Allies. After a great deal of negotiation they have agreed to let us have one large rigid. We tried to get one very up to date of 100,000 cubic meters capacity, but we finally compromised on one with about 70,000 cubic meters' capacity, which is a little smaller than the Zeppelin. There was a dispute in regard to it, but finally we got the Council of Ambassadors to agree to let us have this one. There is a dispute as to how much the Germans should get credit for. They want 4,000,000 marks. It looks as though they would only let them have 3,000,000 to 3,300,000 gold marks.

NOTE.—1 cubic meter equals 35.32 cubic feet.

Mr. BYRNES. Is it completed?

Admiral MOFFETT. No, sir.

Secretary DENBY. It has not been touched.

Mr. BYRNES. If built, who will supervise its construction?

Admiral MOFFETT. We will expect to learn what we can from it.

Secretary DENBY. The Germans will build it and then destroy the plans.

Mr. BYRNES. With our experience of having one built in Great Britain and one in Italy, I should think that we would try our own hand.

Secretary DENBY. We get it free, if built in Germany.

Mr. BYRNES. If it is going to break up in one instance and build up in the other—

Admiral MOFFETT (interposing). The one built in Germany will contain the very last word in rigid construction.

Mr. BYRNES. You thought that about the ship that was built in England.

Secretary DENBY. This matter is not yet settled. The State Department is handling it.

Mr. FRENCH. Are we not entitled to money in lieu of the ship?

Mr. KELLEY. If we are, I think we better take the money.

Coming back to this \$612,000, what is the next?

KITE BALLOONS.

Admiral MOFFETT. For the kite balloons used on ship for spotting.

Mr. KELLEY. I can understand the value of them. How many kite balloons?

Admiral MOFFETT. Twenty-seven.

Mr. KELLEY. How much do they cost?

Admiral MOFFETT. \$8,000 apiece.

Mr. KELLEY. Twenty-seven at \$8,000 apiece, \$216,000. What else are you there?

TOWING MACHINES.

Admiral MOFFETT. Five of the nonrigid towing machines.

Mr. KELLEY. They are hitched to the ship?

Admiral MOFFETT. Yes, sir; and in case they get adrift they can take care of themselves.

Mr. KELLEY. How much do they cost?

Admiral MOFFETT. \$40,000 apiece.

Mr. KELLEY. They cost very much more than the heavier-than-air machines?

Admiral MOFFETT. They have entirely different engines.

Mr. KELLEY. You would not want those things in time of peace?

Admiral MOFFETT. Unless you train in time of peace, you will not be ready in time of war.

Mr. KELLEY. It does not take much training in a thing that is attached to a vessel?

Admiral MOFFETT. Yes, sir; it does. A great many people do not want to go on them at all.

Mr. KELLEY. What is the rest?

Admiral MOFFETT. Three training balloons, \$21,000 total.

Mr. KELLEY. What is the rest?

Admiral MOFFETT. That is all.

Mr. KELLEY. What was the first one?

Admiral MOFFETT. \$175,000. That totals \$612,000.

Mr. KELLEY. How much of that do you want this year?

Admiral MOFFETT. We would like all of that.

Mr. KELLEY. It will take about all the helium you have to fill the large one. We could let the \$175,000, at least, go. You have 27 smaller ones, five nonrigid and three balloons. You had eight lighter than air in the original. We could strike out some of those?

Admiral MOFFETT. There is something I want to tell you. This estimate was gotten up in a hurry and sent in and the total was only \$610,000.

Mr. KELLEY. You have increased it one?

Admiral MOFFETT. Yes, sir; but the total is the same.

Mr. KELLEY. This carries \$612,000. We have carried the eight balloons before in the other item, so we can take them out here?

Commander GRIFFIN. Yes, sir; we estimate \$120,000 in the other item; so you can take \$120,000 out.

Admiral MOFFETT. That will make \$492,000.

COST AND DETAIL OF EQUIPMENT.

Mr. KELLEY. What else have you in the new construction?

Admiral MOFFETT. That is all, except the equipment.

Mr. KELLEY. This is the equipment for the craft that we have been talking about?

Admiral MOFFETT. Yes, sir; \$189,450.

Mr. KELLEY. Please give us a short statement about the nature of the equipment.

Admiral MOFFETT. Parachutes, turn indicators, servo motors, fire extinguishers, speed indicators, sea anchors, oxygen apparatus, wheels and tires, erection tools and devices, handling trucks, airship and balloon sets, ballast bags, flotation gear, blowers, valves, manometers, safety belts, hydrogen detectors, etc.

Mr. KELLEY. You will put in the record an actual inventory of what is needed?

Equipment for use with service types of aircraft built or building and supplied with the aircraft, includes parachutes, turn indicators, servo motors, fire extinguishers, speed indicators, sea anchors, oxygen apparatus, wheels and tires, erection tools and devices, handling trucks, airship and balloon sets, ballast bags, flotation gear, blowers, valves, manometers, safety belts, hydrogen detectors, etc.:

Parachutes.....	\$3,7
Servo motors.....	21,0
Fire extinguishers.....	1,3
Air speed indicators.....	3,7
Sea anchors.....	4,2
Turn indicators.....	19,8
Oxygen apparatus.....	6,8
Wheels.....	9,6
Tires.....	15,0
Erection tools and devices.....	9,7
Handling trucks.....	49,0
Airship and balloon sets.....	3,0
Ballast bags, sand.....	1
Ballast bags, water.....	7,1
Flotation gears.....	3,0
Blowers.....	1,7
Valves.....	6,0
Manometers.....	1,1
Safety belts.....	4,1
Hydrogen detectors.....	1,1
Total.....	189.

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. That is all under new construction?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. They total up around \$6,631,000.

Admiral MOFFETT. \$6,903,075.

Mr. KELLEY. There is no attempt to reconcile that. That represents your construction program for aircraft and equipment?

Admiral MOFFETT. Yes, sir. That is a little more than ours.

Mr. KELLEY. That is all there is in new construction?

Admiral MOFFETT. Yes, sir. The catapult we passed over; we asked \$475,000.

PHOTOGRAPHIC, RADIO, AND MISCELLANEOUS EQUIPMENT AND REPAIRS TO AIRCRAFT.

Mr. KELLEY. For aircraft, including repairs thereto, built or built up on June 30, 1922?

Admiral MOFFETT. I have that detail.

Mr. KELLEY. How much is the amount?

Admiral MOFFETT. The total amount is \$568,500; that includes the lio.

Mr. KELLEY. Will we need any navigational radio, or anything of that kind?

Commander GRIFFIN. Yes, sir. That appears in the sheets, for station equipment, navigational, aerological, radio, and miscellaneous.

Mr. KELLEY. Then, it will read, "Navigational, photographic, aerological, radio, and miscellaneous equipment, including repairs thereto, for use on aircraft." What is the sum total?

Admiral MOFFETT. \$568,500.

Mr. KELLEY. How much of this is for radio?

Admiral MOFFETT. \$403,500.

Mr. KELLEY. What is the other \$165,000 for?

MAINTENANCE OF STOCK AT NAVAL OBSERVATORY.

Admiral MOFFETT. The other is for navigational equipment, consisting of instruments to measure latitude or changes in latitude, pieces, instruments for location of positions, sextants, etc., \$50,000; new machinery for the development of means of printing photographs, \$10,000; for the development of the aerial camera, \$50,000 (those cameras are expensive, and cost \$1,500 each, and they are doing very important work); maintenance of the stock at the Naval Observatory, \$30,000; and replacement of obsolete aerological equipment, \$25,000.

Mr. KELLEY. That covers the \$165,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. It seems to me that that item of \$30,000 for the maintenance of stock at the Naval Observatory is a considerable one.

Admiral MOFFETT. They must go ahead and get instruments for the fleet.

Mr. KELLEY. You do not mean maintenance of instruments, do you?

Commander GRIFFIN. This covers a whole lot of things that are read all over the bill.

Mr. KELLEY. You would use this as a maintenance fund, or for maintenance in the sense of upkeep?

Commander GRIFFIN. For instance, navigational equipment, under this arrangement, will be charged to this subhead, while it is now being charged to experimental and all along the line.

Secretary DENBY. Do you mean new instruments?

Commander GRIFFIN. Yes, sir; they keep a stock on hand, so that somebody writes in for a navigation instrument they will not have to wait until they can send out and get one.

Mr. KELLEY. This is a sort of revolving fund, is it not?

Commander GRIFFIN. No, sir; it is a stock. Of course, you could have the inventory down to zero at the end of the year, but it is solely for the purchase of new stock.

Mr. KELLEY. Then, the word "maintenance" is not the right word, but it should be purchase of stock or purchase of new stock. That is an unusual kind of thing, is it not, running a store over there?

Admiral MOFFETT. No, sir; it is quite usual.

Mr. KELLEY. You are getting into a lot of things that I did not suppose we were running into, if you are running stores.

Admiral MOFFETT. It is not that.

Mr. KELLEY. I thought you said that when people wrote in there to buy some little thing, they could secure it without having to wait.

Admiral MOFFETT. Here is the situation: Somebody writes in and wants a sextant, and if they have it in stock, they do not have to wait for it. They have a reasonable amount of those things on hand.

Mr. BYRNES. What does the stock consist of?

Admiral MOFFETT. This type of equipment, or navigational equipment.

Mr. KELLEY. It is a little reserve supply.

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Have you ever done this before?

Admiral MOFFETT. We have always done it.

Mr. KELLEY. You have always carried it over there?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Why does it come in here in connection with airplane expenses? Will not the Naval Observatory be able to get what money they need for this purpose?

Commander GRIFFIN. No, sir. We have always given them the money for this purpose. The reason why it is confusing is because that \$30,000 is spread throughout the rest of the bill, and you do not see what it is for.

Mr. FRENCH. Where was that item carried before the Bureau of Aeronautics was organized?

Commander GRIFFIN. We always had an aviation appropriation there. Before this bureau was organized, they were getting an allotment under this subhead, and, in addition, an allotment under experimental work, and the thing became confusing.

Mr. KELLEY. Is this item you are carrying here for the Naval Observatory for repairing your instruments?

Commander GRIFFIN. It is for the purchase of new ones.

Mr. KELLEY. You would purchase your own instruments, would you not?

Commander GRIFFIN. No, sir; they purchase them for us.

Mr. KELLEY. When the Naval Observatory comes here, and they are given what they want, you should not be asking anything further for them.

Commander GRIFFIN. They buy instruments for use on ships. You can not encroach much upon this appropriation because they are always in a tight situation with it. This work they do for us has always been done on an allotment of money from the Bureau of Aeronautics or by allotment from the Secretary of the Navy from the aviation appropriation.

Mr. KELLEY. This is for payment for work done on your equipment?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. I would not put it in this way. I do not think this is the way it should be done.

Admiral MOFFETT. I think they try to maintain a stock of their own.

Mr. KELLEY. They make repairs on machines and instruments!

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. If it is for purchase and repairs, it should be put down that way. You have to go over there and get some instruments fixed or regulated?

Admiral MOFFETT. Yes, sir; we have an officer over there who keeps in close touch with us.

MAINTENANCE AND OPERATION OF PLANES IN STATIONS AND THE FLEETS.

Mr. KELLEY. For maintenance and operation of helium plant, air stations, fleet activities, aircraft factory, testing laboratories, spares, engines, and hulls, flying, overhauling, and repairing of aircraft and engines you estimate what?

Admiral MOFFETT. \$6,618,100. We have that in detail by stations.

Mr. KELLEY. What are the details on that?

Admiral MOFFETT. The money requested under this subhead is in excess of the appropriations for previous years. There was appropriated \$3,800,007 in 1920, \$6,044,600 in 1921, and \$4,534,181 in 1922. This comparison with previous appropriations is deceptive, because the maintenance charges for each year have been greatly in excess of the appropriations. In other words, that means taking funds from other subheads.

Mr. KELLEY. You had authority to use it as one sum, and as you've used elsewhere you supplemented this fund?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What are the items?

Admiral MOFFETT. For fleet aviation, \$450,000 on the Atlantic, and for fleet aviation on the Pacific, \$450,000. This estimate was taken up some time ago, and I believe that more will be required.

Mr. KELLEY. What do you propose to do in connection with fleet aviation on the Atlantic that will cost \$450,000?

Admiral MOFFETT. We allot that to the fleet every month. It goes for gasoline, oil, etc., and covers requisitions for things that they get. For instance, if they want some material that comes from the aircraft factory, it is furnished on requisition. As a matter of fact, the aircraft factory is very largely a big storehouse for aviation supplies. Stores that are gotten for them outside of that are charged to their allotment.

Mr. KELLEY. Does this include expenses of ships?

Admiral MOFFETT. No, sir; not for the running of ships, but for the running of the planes themselves and for the replacement of any material that is worn out in use, or of anything that is smashed up, or anything of that kind.

Mr. KELLEY. It does not have anything to do with putting new equipment on ships, but it is just for the maintenance of planes and for the purchase of such gasoline, oil, and other material as is necessary to successfully operate them?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. You have not much aviation in connection with the fleet yet, have you?

Admiral MOFFETT. We have a good deal.

Mr. KELLEY. How many planes are there with the Atlantic Fleet?

Admiral MOFFETT. This is based upon the actual expenditures in the past.

Mr. KELLEY. What do you have?

Admiral MOFFETT. We have the *Wright*, which carries sea planes; we have a torpedo squadron with 12 planes; and we have our fleet that goes with the mother ship.

Mr. KELLEY. This is a large item to be submitted without detail. Do you say you have spent \$450,000 for upkeep of planes on the Atlantic?

Commander GRIFFIN. We have not spent that much in past years. It has been increased because our fleet aviation is increasing, as the expense for fleet aviation goes up the expense for the shore stations is decreased. We know that it will cost us that total amount for maintenance, or at least this amount. We know that we should have raised that figure, but we try to keep it down as low as possible.

Admiral MOFFETT. We have the *Wright* in commission now.

Mr. KELLEY. How many planes are on the *Wright*?

Admiral MOFFETT. We have with the Atlantic Fleet 6 F. (scouting sea planes), 2 NC (scouting sea planes), 11 torpedo planes and 6 kite balloons. These craft are based on the *Wright*.

Mr. KELLEY. Do you know how much you have spent on account of aviation in connection with the Atlantic Fleet this year?

Admiral MOFFETT. I can find out. I know that we made an allotment to the Atlantic Fleet. The old appropriation was \$4,534, and I know that we wrote a letter to all of the stations, including the Atlantic Fleet, cutting the allotments.

Mr. KELLEY. How much was the allotment?

Admiral MOFFETT. I do not remember the amount. We wrote a letter saying that when the allotment ran out they must stop, they did stop. We did give the Atlantic Fleet more.

Mr. KELLEY. Can you estimate how much the expense was?

Commander GRIFFIN. Those figures you have include the same figures that we had last year, and, incidentally, they are based on the fact that the fleet made no cruise to Panama. These figures show only a part of the charges. We will have to include data in the record.

Expenditures of air squadrons, Atlantic Fleet, six months, July 1 to December 1921.

Public bills:	
Shawmut, first quarter	\$19,000.00
Shawmut, second quarter	21,000.00
Total	\$40,000.00
Naval supply account material:	
Shawmut, first quarter	\$23,767.03
Shawmut, second quarter	4,476.47
Wright, second quarter (estimated)	18,000.00
Total	46,243.50
Appropriation purchase account, material issued on shipping orders:	
Spare parts	\$27,250.00
Raw material	192.00
Accessories	1,070.00
Propellers	645.00
Total	29,157.00
Total expenditure for six months	115,400.50
Rate of expenditure per year	230,801.00

NOTE.—During this period the activities of the air squadrons, Atlantic Fleet, are much reduced, due to the limited allotments from the Bureau of Aeronautics and the general inactivity of the Atlantic Fleet. The *Shawmut* (tender) was at the Philadelphia Navy Yard from October 7 to January 4. Present allotments for naval supply account material are \$12,500 for March and \$15,000 for April, and expenditures on public bills and for shipments of appropriation purchase account material will also increase. In 1923 it is expected to considerably augment the fleet air forces by installing aircraft on surface vessels. Maintenance charges will rise accordingly.

Mr. KELLEY. Under this division of the appropriation, do you carry replacements?

Commander GRIFFIN. Only for equipment. Under the present condition, everything for the maintenance of aviation is carried under its subhead. It includes keeping the things as they are.

Mr. KELLEY. This \$450,000 for each fleet is based upon the plans you have for next year and not upon your experience of last year?

Commander GRIFFIN. It was done this way: This figure we had last year was adjusted to the operations for next year. If there is any criticism to be made of it, it is that we have asked for too small a proportion for the fleet.

Mr. KELLEY. That depends upon how much you will do.

Commander GRIFFIN. Our endeavor is to do more in connection with the fleet.

Admiral MOFFETT. What we have on the fleet will not affect the work, because we are so far behind.

Mr. KELLEY. When you estimate the sum of \$1,000,000 for rather small purposes you ought to have it more in detail.

Admiral MOFFETT. We will supply that for the record.

Details of estimate for item "fleet aviation."

	Gasoline and oil.	Power plant and accessories.	Structural and accessories.	Total.
Atlantic Fleet.....	\$230,000	\$110,000	\$110,000	\$450,000
Pacific Fleet.....	230,000	110,000	110,000	450,000

MAINTENANCE AND OPERATION OF SHORE STATIONS.

Mr. KELLEY. The next is for shore stations and aviation facilities.

Admiral MOFFETT. For shore stations, the estimate is \$2,646,000.

Mr. KELLEY. Where will you spend that sum, and in what amounts?

Admiral MOFFETT. At Hampton Roads, \$385,000; at Pensacola, \$60,000; at San Diego, \$450,000; at Anacostia, \$158,000; at Coco Solo, \$160,000; at Guam, \$180,000; at Pearl Harbor, \$80,000; at Quantico, \$128,000; at Port Au Prince, \$55,000; at San Domingo, \$0,000; at Cape May, \$25,000. At Cape May we can cut off something. It should not cost more than the other.

Mr. KELLEY. You would take off \$20,000 there.

Admiral MOFFETT. We can also take off something from Paris Island. If we do not use this money at one place we can use it at another. I will tell you about Cape May, Chatham, and Rockaway.

Mr. KELLEY. If you have \$5,000 for Cape May, \$5,000 for Chatham, \$5,000 for Paris Island, and \$5,000 for Rockaway Beach, that will make the total how much?

Admiral MOFFETT. You can reduce Cape May by \$20,000 and Paris Island by \$5,000.

Mr. KELLEY. That leaves \$2,621,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Let us see if we can do something with the larger amounts, so as to make them correspond with the smaller ones. What is the occasion for spending \$385,000 at Hampton Roads?

Admiral MOFFETT. That is a main operating air station on this coast.

Mr. KELLEY. What expenses are included in this item?

Admiral MOFFETT. I will have to supply that data.

Commander GRIFFIN. It includes every expense of running: the stores, repairs to buildings, repairs to plants, gasoline, oil, and every other expense except new construction. If we build a new station it would not come out of this, and the procurement of new planes would not be included, but it includes everything in the way of maintenance of the planes and stations.

Admiral MOFFETT. It includes water, heat, and light.

Mr. KELLEY. You do not expect to get \$385,000 for Hampton Roads without submitting any details, do you?

Admiral MOFFETT. We can give that in detail, but I have not that data with me.

Mr. KELLEY. You must have some general headings.

Admiral MOFFETT. We can submit that information in the record.

Commander GRIFFIN. Those details will not be as valuable as you may think they will be.

Mr. KELLEY. How much will be for planes and how much for buildings?

Admiral MOFFETT. We can get all of that information for you.

Mr. KELLEY. Can you tell how much of it is for planes and engines?

Admiral MOFFETT. I can not give you any detailed figures right now.

Mr. KELLEY. Then you are not in a position to ask for \$385,000.

Admiral MOFFETT. This is based on the experience of the past.

Commander GRIFFIN. In order to give a really worth-while figure, we would have to go back to the stations and get it.

Mr. KELLEY. How did you make up this \$385,000?

Commander GRIFFIN. By taking the total amount that we spent in 1922.

Mr. BYRNES. How much did you spend in 1922?

Commander GRIFFIN. We have not that figure here. Hampton Roads under this figure has not got its pro rata share, because the Atlantic fleet was boosted. We estimate that it is costing us to maintain aviation under existing conditions a certain sum of money right now, and that amount is around \$6,000,000.

Mr. BYRNES. Will you put in the record a statement showing what you have spent for the first six months of this year, and what you estimate you will spend for the entire year?

Commander GRIFFIN. I will include that in the record.

NOTE.—On Dec. 21, 1921, \$2,756,536.32 had been spent and obligated for maintenance.

Mr. BYRNES. That is the basis upon which you say you made this estimate?

Admiral MOFFETT. We can furnish that.

Mr. BYRNES. You have nothing to show how much you allotted this station this year?

Admiral MOFFETT. Yes, sir. The payments are made to the stations two ways, one by allotment of the money that they spend at the station, and the other is by requisitions that come to the bureau. In order to give the complete figure we would have to have both elements.

Commander GRIFFIN. We are allotting about \$12,000 per month, Hampton Roads.

Mr. KELLEY. For what?

Commander GRIFFIN. For the expenses that they pay at the station.

Mr. KELLEY. \$12,000 per month would be only \$144,000.

Commander GRIFFIN. The rest of the expense of the station is made up by requisitions that they put into the bureau for material.

Mr. KELLEY. These figures that the admiral has given, aggregating \$2,646,000, represent the expenditures on the stations and on the equipment?

Commander GRIFFIN. Yes, sir; on the stations and the equipment, but it is not to add anything to it; it is to keep it in its existing condition.

Mr. KELLEY. In the next classification below you have, "Naval aircraft factory, overhaul of planes issued for service when returned from stations."

Admiral MOFFETT. That means planes used in the service.

Mr. KELLEY. That amount of \$385,000 at Hampton Roads is for maintenance of buildings, grounds, and equipment?

Admiral MOFFETT. Yes, sir; including water, heat, and light.

Mr. KELLEY. It includes water, heat, light, and power, and the repair and upkeep of planes?

Admiral MOFFETT. Yes, sir; and some civilian labor, but not much.

Mr. KELLEY. You said you had been allocating \$12,000 a month at Hampton Roads; that would make \$144,000 a year, while you are allocating for \$385,000.

Commander GRIFFIN. That is not all of their expense; that is nothing less than half their expense. We do that so they can save something with which to pay their gas bills and their current expenses. Then when there are special things they want, like special station equipment, we consider every request for such equipment separately, and if the request is approved the bureau pays the bill. This sum of \$12,000 is placed there and is spent at the discretion of the station; there is a great deal more spent, but whatever is spent in addition to that must meet the approval of the bureau.

Admiral MOFFETT. In 1921 we spent \$6,395,983. I knew there would be trouble about this and I want to show every expenditure

and how much we knew we had spent by past experience. As I we did spend in 1921 \$6,395,983.

Commander GRIFFIN. We know what we have spent, but the fiscal year in which an account has been made is the fiscal year 1923. Our cost was over \$6,000,000 for that year, and the chief difference between that year and the coming year, 1923, is that during that year we used an enormous amount of surplus stock which we did not use in 1923.

Mr. KELLEY. I am sorry you do not know more about this.

Admiral MOFFETT. We will find out; of course, we could not be everything up here, but we can prove it all right, because we know what we spent, and we will go and find it and we will show you.

Mr. KELLEY. Let us take Pensacola. Do you know any more about Pensacola than you do about Hampton Roads?

Admiral MOFFETT. I am afraid I do not know very much more. We took Pensacola over as a navy yard, and we do our training there, not all of it, but most of the training of officers, warrant officers, enlisted men, is done there, and we have carried a larger civil force there than anywhere else. I do not know how that was. I think probably that was originally because it was a navy yard and it used more civilian labor than anywhere else. A good deal of overhaul work on engines and planes is done by the civil force; that is one of the reasons why the expenditure there is larger. I see, at San Diego it is not nearly as much because we have very little civil labor at San Diego. San Diego grew up from nothing; there not as much work is done by the civil force as is done by the people themselves.

Mr. BYRNES. Why can you not have more of the work at Pensacola done by the people themselves, or is it because they do not know how?

Admiral MOFFETT. Well, I will tell you why, and there are many reasons. The principal reason is that when we try to get more enlisted men from Navigation, they will not give them to us. As a matter of fact, I think in aviation, except for purely manufacturing, the work should be done by enlisted men. I think a plane ought to be like a ship, it ought to have its crew and all of the overhaul work ought to be done by the men who are directly connected with the plane, especially as the civil people go home at 4 or 4:30. So as to aviation we really ought to come to the point where we ought to use enlisted men and very few civil people at any operating station.

Mr. KELLEY. Will you please put in the record a statement showing the distribution of the amounts you have asked for the operation of the various shore stations and showing the chief purposes for which the money is spent, for example, so much for repairs and overhaul of machines, so much for repairs to buildings, so much for the upkeep of the grounds, so much for heat, light, and power, and so other general headings as can be furnished from the books.

Admiral MOFFETT. Yes, sir.

Details of maintenance and operation of shore stations and facilities.

Station.	Class 0, clerical force attendants, miscel- laneous labor, and supplies.	Class 1, leave and holiday.	Class 2, power plant, grounds, water- front, commu- nications, fire protection.	Class 3, repairs to build- ings and struc- tures.	Class 4, miscel- laneous equip- ment.	Class 5, repairs plant ap- pliances.
on Roads.....	\$57,750	\$15,400	\$19,200	\$19,200	\$9,240	\$3,850
la.....	144,000	38,400	48,000	48,000	23,040	9,600
zo.....	67,500	18,000	22,500	22,500	10,800	4,500
la.....	22,000	6,400	8,000	8,000	3,840	1,600
o.....	24,000	6,400	8,000	8,000	3,840	1,600
.....	27,000	7,200	9,000	9,000	4,320	1,800
arbor.....	12,000	3,200	4,000	4,000	1,920	800
o.....	19,200	5,120	6,400	6,400	3,072	1,280
Prince.....	15,000		5,000		2,000	
omingo.....	13,000		4,000		2,000	
y.....			2,000	3,000		
l.....			2,000	3,000		
ay.....			2,000	3,000		
st.....	78,000	13,000	25,800	19,500	13,000	13,500

Station.	Class 6, repairs to ma- chinery and machine tools.	Class 7, portable power tools.	Class 8, loose and hand tools.	Class 9, super- vision.	Title V, repairs and op- erating expenses of air- craft, in- cluding gasoline and oil.	Total.
on Roads.....	\$2,695	\$1,155	\$2,310	\$7,700	\$246,400	\$385,000
la.....	6,720	2,880	5,760	19,200	614,400	960,000
zo.....	3,150	1,350	2,700	9,000	288,000	450,000
la.....	1,120	480	960	3,200	102,400	158,000
o.....	1,120	480	960	3,200	102,400	160,000
.....	1,260	540	1,080	3,600	115,200	180,000
arbor.....	560	240	480	1,600	51,200	80,000
o.....	896	374	748	2,560	81,950	128,000
Prince.....					23,000	55,000
omingo.....					31,000	50,000
y.....						5,000
l.....						5,000
ay.....						5,000
st.....	2,600	3,600	13,400	2,600	6,000	185,000

OPERATION AND MAINTENANCE OF HELIUM PLANT.

. KELLEY. We will now go ahead with the aviation activities. The helium plant you are asking \$250,000. Tell us about that.

miral MOFFETT. Last year we were not limited; we put it in a subhead, but when we found the Army had \$250,000 we then, since we had promised to go 50-50, that we would give \$250,000.

. KELLEY. Where is this plant located?

miral MOFFETT. Near Fort Worth, Tex.

. KELLEY. What is the money to be used for?

miral MOFFETT. For the production of helium.

. KELLEY. How many employees have you there?

miral MOFFETT. I do not know but I can find that out. The agreement as to helium is this: We have a contract with the Linde

Co., and I can find no pay roll. We have taken this helium and there, and then we have so much a mouth and

Note.—When in roll 6 employees maintain men.

Commander [illegible] helium they are

Admiral [illegible] year they were

Mr. KELLER operating the

Admiral [illegible]

Mr. KELLER under the [illegible]

Admiral [illegible]

Mr. KELLER

Commander

\$75,000 a [illegible]

Admiral [illegible]

employ [illegible]

Mr. KELLER

Admiral [illegible]

Mr. M [illegible]

charge

helium

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As [illegible]

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[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

admiral MOFFETT. I think that is what they have in mind.

Mr. KELLEY. Is that full capacity?

admiral MOFFETT. Yes, sir.

Mr. KELLEY. How many cubic feet of helium ought we to get out of that?

admiral MOFFETT. You mean at present?

Mr. KELLEY. No; how much for the year?

admiral MOFFETT. The production, I think, was about 30,000 cubic feet a day.

Mr. MOORE. The plant is not absolutely perfect yet, Mr. Kelley; there is still a lot of work to be done in increasing its efficiency; some of the compressors have not been working to the best efficiency to the present time, but when that plant runs at full capacity, as it would do after a few months more, it ought to produce at least 100,000 cubic feet a month.

Mr. KELLEY. How many cubic feet will we get out of this investment of \$800,000?

Mr. MOORE. Taking off the money for research work, and things of that kind, they ought to be able to run the plant for about ten months, and out of that we would get about 10,000,000 feet. We have storage, however, for 18,000,000 cubic feet already on the land, stored in containers.

Mr. KELLEY. Why do we want to make so much if we are going to make 10,000,000 cubic feet during this year?

admiral MOFFETT. If we run a rigid we lose by leakage a little more than 1 per cent a day during flying operations.

Mr. KELLEY. You do not mean to say that in 100 days you would lose it all?

admiral MOFFETT. I think you would; yes, sir; provided we operate every day.

Mr. MOORE. Perhaps I could throw some light on that also. The Petrolia Field, from which we get the gas, is almost on its last legs; it is the old field; it is the field that has had more helium in it than any other field in the United States.

Mr. KELLEY. Is this the Petrolia Field?

Mr. MOORE. Yes; Petrolia, Tex.; the gas is piped about 120 miles from Fort Worth, and it is estimated that that field will only last about four or six years longer, and the longer we let that plant stay there the more helium we will lose in the air all the time. We have \$800,000 investment there, and if we do not use that investment we are going to let the gas go and not be able to ever get it.

Mr. KELLEY. It does not make much difference if we put it in these balloons and lose it in 100 days.

Secretary DENBY. The helium?

Mr. KELLEY. Yes.

Secretary DENBY. Under those circumstances we would not be much further ahead.

admiral MOFFETT. I believe we should go on with what we have because the present owner of the gas land was paid \$1,500,000 for the right to use that land for the helium gas.

Mr. KELLEY. How much of this \$800,000 are you going to use for research work?

Mr. MOORE. \$31,500 is the item.

Mr. KELLEY. \$31,500 from each fund?

Mr. MOORE. No; from both funds.

Mr. KELLEY. So that the bulk of this will be for the production of 10,000,000 feet of helium?

Mr. MOORE. I am giving the figures recommended by the helium board, made up of members of the Army, the Navy, and the Bureau of Mines. Seventy-eight thousand dollars out of the total would be for research.

Admiral MOFFETT. Wait a minute; I have it here. The note says they only expect to get \$500,000, and they estimate for extension work and research work \$26,500. I am taking the estimate of the helium board.

Mr. MOORE. Based on a total appropriation of \$500,000 it will be just what you say.

Secretary DENBY. This question of helium has been up very acutely throughout the entire Government service; that is, the question of policy to be adopted. It has been up before the Interior Department, before the Navy Department, and before the War Department. Fort Worth has been closed down practically entirely, has it not?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. What does it cost to keep it going?

Admiral MOFFETT. I think it costs us now about \$13,500 a month.

Mr. KELLEY. They are asking \$800,000 for Fort Worth for next year, \$400,000 from the Navy and \$400,000 from the Army.

Secretary DENBY. That is the joint board's recommendation?

Admiral MOFFETT. No; we just put in an estimate for \$250,000.

Secretary DENBY. Let me follow this up. Are you using any helium now?

Admiral MOFFETT. No.

Secretary DENBY. You filled one ship and brought her to Washington?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. That is the only helium you have used?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. The whole helium question is one that faces the entire Government?

Admiral MOFFETT. Yes, sir.

Secretary DENBY. The time will undoubtedly come when the military services will be prevented from using anything but helium, and since it is so acute—this helium matter being before the Cabinet and others—I am just wondering whether it would not be advisable to lay this aside until such time as we can adopt a real policy in regard to helium. At the present time the Secretary of the Interior is discussing reservations in different parts of the country in order to get helium, the production of gas, and all that sort of thing.

Mr. MOORE. I am in charge of that work for the Bureau of Mines and for the Secretary of the Interior, and that is the reason I am here; but all of that program is in addition to these items for the Army and Navy, and it does not take into consideration in any way the items the Army and the Navy have been asking for. In other words, the program which will ultimately go to the Cabinet is in addition to the money asked by the Army and the Navy.

Secretary DENBY. And the money asked by the Army and the Navy is for the one plant at Fort Worth, Tex.?

Mr. MOORE. Yes, sir. Therefore, if that program should fall through and these items were not passed, there would be no money at all, and we would be worse off than we were last year, instead of better.

Secretary DENBY. What I mean is, what particular need have we for helium right now, and when are you going to be able to use it in a little balloons?

Mr. KELLEY. The admiral says they would lose it all in 100 days if they put it in bags, and there is no way of plugging it up in the gas or recovering it.

Admiral MOFFETT. What we have we keep in flasks.

Mr. KELLEY. Mr. Moore says we can make 10,000,000 feet for that amount of money and that we have storage capacity for about that amount.

Mr. MOORE. We have storage capacity for about 18,000,000 cubic feet.

Mr. KELLEY. So we could run the plant down there for nearly two years and not waste it, but we could store it up?

Admiral MOFFETT. And he says that this field is rapidly becoming exhausted.

Mr. KELLEY. So probably we had better go ahead with it?

Admiral MOFFETT. We have paid to the people who own this field \$500,000 for the right to take the gas out of it.

Mr. KELLEY. I do not know whether the helium is going to be needed when you get it and store it, because I do not know whether this lighter-than-air business is going to materialize. However, we are in a generous frame of mind to-day, and you want \$400,000 instead of \$250,000?

Admiral MOFFETT. I think it ought to be raised, but we will have to take it off of some other place.

Mr. KELLEY. I told Mr. Anthony, in charge of the Army bill, that we would do what he did, so if the Army bill grants \$400,000 I am ready committed to that.

COST OF MAINTAINING LAKEHURST.

Admiral MOFFETT. We had better take something off of Lakehurst.

Mr. KELLEY. We can take out all of Lakehurst, can we not?

Admiral MOFFETT. No. I would like to go over that some more and see if we can reduce the estimate.

Mr. KELLEY. Why can you not close down Lakehurst?

Admiral MOFFETT. Well, it is closed down now as a flying station; but I think we can reduce the amount for Lakehurst.

Mr. KELLEY. Suppose we cut it out entirely?

Admiral MOFFETT. You will have to allow enough for Lakehurst.

Mr. KELLEY. How much?

Admiral MOFFETT. I do not know without looking into it, and I will put it down as low as I can.

Commander GRIFFIN. I should take it off of the miscellaneous total.

Admiral MOFFETT. I might take off \$200,000, sir; I think we can get along with \$135,000.

Mr. KELLEY. How much did you spend at Lakehurst this year as I understand it, you had it closed down all the time?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And simply had watchmen there?

Admiral MOFFETT. No; there were people there from the outside contractors were working there, and we are doing something; we are building the mooring mast and doing other work. The place is expensive to run because its different buildings are scattered. The power plant had to be a long ways from the hangar.

Mr. KELLEY. You think you can get along with \$135,000?

Admiral MOFFETT. I would like to look into that before you do; but, roughly, I think we can take off \$150,000 and put it on the helicopter.

Mr. KELLEY. We have given you \$400,000 on the helium.

Admiral MOFFETT. Well, we will have to take it off of some place or it will change your total—\$17,000,000.

Mr. KELLEY. I have my eye on another item here.

Mr. GRIFFIN. That miscellaneous item was put in here for just very thing—that is, it was put in there to take charge of just things as these, which always occur.

Mr. KELLEY. Suppose we make the amount for Lakehurst \$150,000 will that be all right?

Commander GRIFFIN. No; that will not run us.

Mr. KELLEY. What will run you?

Commander GRIFFIN. \$335,000.

Admiral MOFFETT. Take off \$150,000 and put it on the helicopter that will make it \$185,000, but I do not know how we will get on that.

NEWPORT EXPERIMENTAL STATION.

Mr. KELLEY. You have an item of \$6,000 for Newport, R. I. is up there?

Admiral MOFFETT. We carry on experiments with torpedoes on that little island up there. The torpedoes are made at Newport, and we have three planes there and we experiment with the torpedoes at the torpedo station.

Mr. KELLEY. The reason you carry on your torpedo experiments there is because it is more economical and is near the torpedo station.

Admiral MOFFETT. Yes, sir.

COST OF MAINTAINING NAVAL AIRCRAFT FACTORY.

Mr. KELLEY. You have an item of \$400,000 for the naval aircraft factory?

Admiral MOFFETT. That looks big.

Mr. KELLEY. Well, tell us about it.

Admiral MOFFETT. Well, I will have to go back and get more details about that the same as I will have to do with reference to the others. I can give it to you in general but I can not give you details.

Commander LAND. I think I can give you some of the details.

Admiral MOFFETT. I do not think you can give any more details than I can; but go ahead.

Commander LAND. It is the main storehouse for the whole Bureau of Aeronautics, and all of the equipment and supplies come from there. It is the outfitting point.

Mr. KELLEY. Is this amount for wages?

Commander LAND. For wages in the handling of shipments; yes—that is a part of it.

Mr. KELLEY. How many men have you there?

Commander LAND. The number fluctuates; but we have there now from 500 to 600 men on production. They are engaged in the storehouse in manufacturing spare parts and in manufacturing experimental planes, in construction the *ZR-1*, the fabrication of the material, testing out planes of an experimental nature, they are engaged in overhauling the planes sent in from all of the fields and operating stations; they are also engaged in testing such things as parachutes, making engine tests, testing equipment of all kinds and types. It is generally a large experimental station in addition to being a tremendous storehouse for the storing of all material. However, it is a very small station if you compare it with a navy yard.

Mr. KELLEY. Does this include the pay of those 500 men?

Commander LAND. Oh, yes, sir; those who work on maintenance.

Mr. KELLEY. How many are paid out of this fund?

Commander LAND. All of the mechanical employees are paid out of this fund.

Mr. KELLEY. How many by number?

Commander LAND. It is a fluctuating proposition, but I said between 500 and 600 men on production.

Admiral MOFFETT. We have had at both places 1,300 men.

Mr. KELLEY. \$400,000 will not pay 500 men.

Admiral MOFFETT. No; but we allot work. For instance, take the work on the *Z. R. 1*; that will be charged to the *Z. R. 1*.

That is probably for the maintenance of the aircraft factory, it is for the heat, light, and power.

Mr. KELLEY. These men are there and are working on some job for which a special appropriation has been made?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And paid out of that appropriation?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. What is this \$400,000 for?

Admiral MOFFETT. The actual running of the factory itself.

Mr. KELLEY. You mean the watchmen?

Admiral MOFFETT. The watchmen and the firemen who furnish the power. The light is charged to the factory and any water is charged to the factory.

Commander GRIFFIN. And the upkeep of the buildings.

Mr. KELLEY. Please put in the record a table of this \$400,000 distributing the charge the very best you can by purposes for which the money is spent. It does not include much for the payment of the mechanics?

DETAILS OF MAINTENANCE OF NAVAL AIRCRAFT FACTORY.

1. Naval aircraft factory.

7) Power, light, heat (labor and material)	\$328, 000
8) Upkeep of naval aircraft factory plant, repair to buildings, grounds, fire protection, etc	72, 000
Total, Item 1	400, 000

II.—Overhaul of planes before issue to service and when returned from service, etc.

	Labor.	Material.	Total.
(1) Hulls.....	\$569,000	\$233,000	\$802,000
Engine.....	252,000	97,000	349,000
Storekeeping.....	177,000	28,000	205,000
Total.....	998,000	358,000	1,356,000
(2) Seaplane operation at naval aviation field, labor, material, and overhead.....			71,000
(3) Storekeeping expense at naval aviation field for all air stations (excluding naval aviation field) including labor, material, crating, handling, trucking, etc.....			154,000
Total of Item II (1, 2, and 3).....			1,581,000

NOTE ON ITEM II.—Between 250 and 300 planes are overhauled annually at the naval aircraft factory.

NOTE ON ITEM II (3).—There were 3,402 shipments made in the fiscal year 1921. These shipments were made in as large lots as practicable, to reduce expenses.

Admiral MOFFETT. I have a letter from Lakehurst, which shows in detail where they put their money.

Commander LAND. I was covering the aircraft factory as a whole.

AVERAGE COST OF REPAIRING AIRPLANES.

Mr. KELLEY. What is the average cost per annum of repairing a plane? If you had 100 planes to keep up, what would you expect them to cost you?

Commander LAND. Fifty per cent of the original cost.

Mr. KELLEY. What do they cost—\$20,000?

Commander LAND. Yes, sir; somewhere in that neighborhood.

Mr. KELLEY. And you would expect to spend \$10,000 on repairs?

Commander LAND. Yes, sir.

Mr. KELLEY. That would mean that you would provide for the repair of 150 planes?

Commander LAND. It would depend on how many were operated, of course.

Mr. KELLEY. What is the total number of planes in operation?

Admiral MOFFETT. One hundred and sixty-seven. We want money enough to repair 158.

Commander LAND. It depends a great deal on the number of operating hours.

Mr. KELLEY. It looks as though all the airplanes would be up at the Philadelphia Navy Yard.

Mr. FRENCH. It depends on the amount of time that the plane has been operated?

Commander LAND. Yes, sir.

Mr. FRENCH. If you operate it a certain number of hours every day, then it must be overhauled more frequently than if operated a less number of hours a day on alternate days?

Commander LAND. Yes, sir.

Secretary DENBY. Do you bring the planes from the west coast?

Admiral MOFFETT. No, sir.

Secretary DENBY. Where do you get them repaired on the west coast?

Admiral MOFFETT. At San Diego.

Mr. KELLEY. This is a pretty liberal guess?

Commander GRIFFIN. It is not a guess at all. We have spent in this period this year, which is not a full year by any means, \$1,360,000 there, so that was simply prorated down. It is not a wild guess the money spent there for that purpose.

Mr. KELLEY. With only 167 planes on both coasts it does not seem that the figure you have given could be right.

Commander GRIFFIN. That is the operating complement, the number they are allowed to fly. The total number of planes is much greater than 167.

Commander ELLYSON. You asked me that question, Mr. Kelley. We have allowed an operating complement of 167. The number of planes actually at the operating stations does not include the naval aircraft factory, the storehouse, or the supply station at Hampton Roads. They come to 484. If you allow an operating complement of four planes, if one is damaged one of the stand-by planes put in its place and the damaged plane is put in condition.

Mr. KELLEY. That is 484 planes that are in good condition for operation and it is only a question of sending one to the factory to be repaired and taking one out of the stock for the work?

Commander ELLYSON. Yes sir.

ITEMS COVERED BY MISCELLANEOUS EXPENSES.

Mr. KELLEY. What is the miscellaneous item of \$500,000?

Admiral MOFFETT. We will have to look that up.

Mr. KELLEY. Your suggestion is to cut that out?

Commander GRIFFIN. No, sir. We have inspection offices in the field. We have charge of the Philadelphia Navy Yard. We have great many charges, none of them great, which do not appear in these items. Any work we have done at a navy yard for aviation we have to pay for. It is not great at any one yard. If you would take that \$150,000 and put it for Lakehurst, you would have the figures exactly right.

Mr. KELLEY. Just make this \$150,000 instead of \$498,000?

Commander GRIFFIN. Provided you do not cut Lakehurst. If you do not take the \$150,000 off of Lakehurst you can take the \$150,000 off of miscellaneous.

Admiral MOFFETT. Leave Lakehurst as it was and we will give you more detail; we will give you exactly what we can do, and take the \$150,000 off of the miscellaneous.

Mr. KELLEY. Suppose we should take off this \$618,100 off of the total; how would that be?

Commander GRIFFIN. Then we would have \$300,000 less than it actually cost in 1921. We are using a larger amount of spare materials from the war than next year will be available for that purpose.

Mr. KELLEY. What are the items entering into this miscellaneous?

Commander GRIFFIN. Repairs and overhaul, cost of inspection fees, and unforeseen things that come up.

Mr. KELLEY. You have not any idea that you can get money on the floor on such a statement? You have gone into little items of \$1,000 and \$50,000, and then you come along with one grand total

of \$500,000 and call it "miscellaneous." I do not believe that I could ever get money that way.

Commander GRIFFIN. I appreciate the weakness of it.

Mr. KELLEY. While the House, I believe, is very friendly to aviation, still they would want to know where the money was going.

Admiral MOFFETT. We can take that and distribute it. We take off \$150,000, and then we might cut miscellaneous down \$100,000 and distribute it somewhere else.

Mr. KELLEY. What we would like to have you do is to spread \$498,000 over the items which gave you information enough to make the total, in the first place.

Admiral MOFFETT. We will do that.

Details of estimates for item "Miscellaneous."

(a) Maintenance, repair, and operation of aircraft on <i>Langley</i>	\$173
(b) Maintenance and repair of airplane handling facilities on <i>Langley</i>	50
(c) Repairs necessitated by storms, fires, floods, etc.....	150
(d) Work for Bureau of Aeronautics performed at navy yards.....	74
(e) Cost of aeronautic work incidental to cooperation with other bureaus and other departments.....	50
Total.....	498

Secretary DENBY. I should like to point out in connection with all these items that the department itself has already made terrific cuts under the demand for economy through the Budget officer—we cut to the bone in many instances. Now, we are drawing blood. It is hard to reconcile.

Admiral MOFFETT. We will go over all of the data and explain each item just as fast as we can. Under new construction we have only asked for \$500,000. We put that in; we did not go into details.

MAINTENANCE, OPERATION, AND REPAIR OF AIRCRAFT, ETC.

Mr. KELLEY. For maintenance, operation, and repair of aircraft testing laboratories, and overhaul plants, you want \$6,618,100?

Admiral MOFFETT. Yes, sir.

EXPERIMENT AND DEVELOPMENT OF WOODEN PARTS, WINGS, ETC.

Mr. KELLEY. For continuing experiments and development of all types of aircraft—you will probably drop that out?

Admiral MOFFETT. I hope not. That is the most important one.

Mr. KELLEY. How much is it?

Admiral MOFFETT. \$1,116,950. That is less than it was before.

Mr. KELLEY. How did you arrive at that figure?

Admiral MOFFETT. Under "Structural cognizance, \$560,000."

Mr. KELLEY. What do you mean by that?

Admiral MOFFETT. I mean the development of the wooden parts of the wings. That used to be under another bureau—now under material division. Commander Land is the head of the material division. It is the construction of the planes, except the engines.

Mr. KELLEY. This will be mostly for the payment of employees.

Admiral MOFFETT. No, sir; there is some contract work.

Mr. KELLEY. That is mostly a question of labor.

Admiral MOFFETT. This is for the experimental end of the new ones. We are trying not to go into production at the factory.

Mr. KELLEY. It seems to me that you ought to be able to tell us how many people are working on this and what pay they are getting, so that we can tell how this estimate is made up.

Admiral MOFFETT. We can do that.

Mr. KELLEY. And how much of the \$560,000?

Commander LAND. It is impossible to tell that; we do not know ourselves what we are going to do. You can not pin that down to an absolute estimate at this time.

Admiral MOFFETT. I have a note here:

Structural development; Continue development and research in metal construction; duralumin and special steels and their fabrication; improved types of launching arresting and floatation gear; aerodynamic improvements, such as slotted wings, variable proofing of aircraft; synthetic substitutes for gold-ater's skin and other special materials; improved aircraft instruments, including servo motors, speed indicators, tensionmeters, turn indicators, oxygen paratus, wind tunnel and model basin experiments; wood technology; experimental types of airplanes that show promise, including ship, torpedo, school, and photographic types; gliders; improved methods of construction for both heavier-than-air and lighter-than-air craft.

Mr. KELLEY. You are reading various sorts of activities that will be paid for out of this fund?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. The amount here seems to be quite exact, \$1,116,950.

Looks as though it were not a mere offhand estimate, or you would have made it \$1,117,000 in round numbers, or perhaps \$1,250,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. You must have had some details?

Admiral MOFFETT. We cut a percentage off of each item. Our first estimate was \$21,500,000. Then we cut \$4,500,000 and put it at \$17,000,000. We took a percentage off those items that we considered the least important. We had a conference about that. We took it off here and there. We took off where we could get along best.

Mr. KELLEY. Anyway, you would consider the number of men to be employed?

Commander GRIFFIN. Not the men. That would be the least cost. For instance, Doctor Moore would be allowed money to carry on experiments for us. The number of men we do not know. We simply know the total cost.

Commander LAND. I can give you the men at the aircraft factory, but that would not be useful information to the committee. There is Doctor Moore, and we have spent a lot of money with Doctor Stratton of the Bureau of Standards.

NUMBER OF MEN TO BE EMPLOYED IN EXPERIMENTAL WORK.

Mr. KELLEY. It seems to me if I were doing this I would know how many men would be working on the experimental work the coming year.

Commander LAND. But how about the work of the outside contractors?

Mr. KELLEY. If you let a certain award to an outside contractor, it would be based on the amount of material and labor used?

Commander LAND. Yes, sir.

Mr. KELLEY. How many men have you working on experimentation, or do they work partly on your work and partly on their work?

Commander LAND. That is exactly what they do.

Mr. KELLEY. You do not know how they divide it up?

Commander LAND. We can divide it up for any day.

Mr. KELLEY. I think that Congress will be generous with you this item of experimentation, because there is a lot of sense in it to develop these new types.

Admiral MOFFETT. We will give you more detail.

Mr. KELLEY. If you can give us any information which will be useful as to how many people will be employed on this experimental work, or the average of how many, we shall be obliged.

Admiral MOFFETT. We will try to get some more details.

NOTE.—Between 200 and 300 men are engaged on experimental work. This work is carried on at the naval aircraft factory and in the Washington Navy Yard. Experimental work is also carried on at the works of various contractors, in the Bureau of Mines, in the Bureau of Standards, in the Forest Products Laboratory, at McCook Field, Dayton.

COOPERATION WITH ARMY IN TESTING AND EXPERIMENTAL WORK.

Mr. KELLEY. I should like to ask in this connection, for the purpose of the record, what the relation is between the Army and Navy in regard to this experimental and research work which is being done. We do not want to duplicate.

Admiral MOFFETT. No. For instance, at their station at Dayton they have a place for testing propellers. We have not any such place. So we test our propellers out there. They also test some of our engines out there.

Mr. KELLEY. Will any work be done in the new laboratory for you?

Admiral MOFFETT. The new naval laboratory?

Mr. KELLEY. Yes, sir.

Admiral MOFFETT. There is some talk of moving the radio from Anacostia into that place.

PERSONAL SERVICES—SALARY AND WAGES.

Mr. KELLEY. For personal services: For clerical, inspection, drafting, and messenger forces for new construction at stations under cognizance of the Bureau of Yards and Docks, you have \$275,000. That is the first item we talked about?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. How much are you asking for this year?

Admiral MOFFETT. \$790,000.

Mr. KELLEY. That is due to the fact that all of these clerks, inspectors, messengers, and drafting people heretofore have been carried on other rolls?

Admiral MOFFETT. Yes, sir; that is right.

Mr. KELLEY. It is not due to an increase of the force?

Admiral MOFFETT. That is right, sir.

Commander GRIFFIN. The present roll is \$775,839.36.

Mr. KELLEY. What I said a while ago is correct, that that represents the expenditures of the Bureau of Aeronautics as it is organized at the present time, based upon the expenses which heretofore have been scattered over other departments?

Commander GRIFFIN. Yes, sir.

Admiral MOFFETT. We have asked for \$15,000 additional to give us little leeway.

Mr. KELLEY. Is that what it costs you this year?

Commander GRIFFIN. Yes, sir; as of March 1.

Mr. KELLEY. That is the amount you are asking for next year, except the \$15,000?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. You will have, in round numbers, \$790,000 for this year next year?

Commander GRIFFIN. Yes, sir. The provision is that those employees shall not exceed \$790,000. It comes out of the \$17,000,000.

CONSTRUCTION, REPAIR, AND IMPROVEMENT OF STATIONS.

Mr. KELLEY. You are not asking anything this year for new construction of buildings and improvements at air stations?

Admiral MOFFETT. We are asking under miscellaneous for \$500,000. It you said something about whether that would go through or not.

Mr. KELLEY. We do not want to put up any new buildings at stations. If this is for repairs, we can consider it, but if it is for new buildings, we will not waste any time on it.

Admiral MOFFETT. We want it for repairs and replacements.

Mr. KELLEY. If you want \$500,000 for repairs at Coco Solo, Hampton Roads, Lakehurst, Pearl Harbor, and at the other places, we will consider it, but we can not consider anything for new construction.

Commander GRIFFIN. The \$500,000 requested will be required for continuing new construction for replacement of existing temporary structures. When the condition of existing temporary construction becomes such that repairs are no longer feasible new construction is necessary for replacements. A few such items will use the entire \$500,000.

Mr. KELLEY. You have an item for the maintenance and operation of air stations, aircraft factory, helium plant, etc. That is being taken care of already.

Admiral MOFFETT. You could put that under maintenance.

Secretary DENBY. Some months ago, and before the 4th of last March, the hangar at Anacostia burned. We had the money to replace it, but there was some question as to the title to the land. We could not put a cent on anything that did not belong to us. Now, we understand that the ground belongs to the Army, and the Army will give title to the ground, or to the amount of ground necessary, and when that is done, I think we should rebuild the hangar. We are using that station all the time.

Mr. KELLEY. Of course, if the title is in the Government, the President can keep you out of trouble on account of it. How much will it cost?

Secretary DENBY. \$50,000; but we have the money with which to build it.

CONSTRUCTION OF CATAPULTS.

Admiral MOFFETT. We have an estimate for catapults.

Mr. KELLEY. What about the catapults?

Admiral MOFFETT. For that we have asked a separate item of \$75,000, under subhead 3.

Mr. KELLEY. The item is for construction incident to flying, stowing, releasing, or securing aircraft, 19 catapults, at \$25,000, \$475,000. What is that construction?

Admiral MOFFETT. A few months ago we procured one catapult for experimental purposes for planes that weighed about 3,500 pounds. It was successful, and we started in and placed under contract six catapults able to launch planes of 6,000 pounds weight. They will launch the heavier planes, and then we will build some smaller ones for the destroyers. This estimate for 19 catapults was gotten up some time ago, and we will really need more than that. The unit price is \$25,000, and I think we can get more than 19 for the amount we have estimated. We will have finished this year 9, and this will be 19 more. We need more than that, and we think we can get more than that, because some will be large and some will be small. When that estimate was gotten up we did not know as much about it as we do now.

Mr. KELLEY. You are going to construct nine out of this year's funds?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. And you want 19 more out of this proposed appropriation?

Admiral MOFFETT. No, sir; we want more than that. This estimate for 19 was gotten up some time ago, and the program we have now calls for more.

Mr. KELLEY. Why do you not stick to the battleships this year?

Admiral MOFFETT. That would be 18, and we need some for drill purposes. We must have one at Pensacola, one at San Diego, and one at Hampton Roads. We ought to have catapults of different types. I do not think there is any more important item in the bill than this one for catapults. We have got to build some smaller ones and some heavier ones.

Mr. KELLEY. How many do you want for the battleships?

Admiral MOFFETT. We will require 18 for the battleships.

Mr. KELLEY. What will they cost?

Admiral MOFFETT. We put in here 19 catapults. These catapults are necessary to equip 10 first-line ships and 8 light cruisers, at a unit cost of \$25,000. One additional catapult is required for training purposes.

Mr. KELLEY. How much will that amount to in money?

Admiral MOFFETT. Nineteen catapults, at \$25,000 each, would amount to a total of \$475,000.

Mr. KELLEY. How many battleships are rigged up with them?

Admiral MOFFETT. We will have to get more than we have asked for.

Mr. KELLEY. You are asking \$475,000 in this estimate for catapults?

Admiral MOFFETT. As a matter of fact, we will really need 52.

Mr. KELLEY. At \$25,000 apiece?

Admiral MOFFETT. No, sir; I think that is what we should get. This estimate was made some time ago, and we could not touch it.

Mr. KELLEY. Can you tell me how many battleships you want to equip with catapults and what the cost will be?

Admiral MOFFETT. Eighteen battleships.

Mr. KELLEY. How much apiece?

Admiral MOFFETT. \$25,000.

Mr. KELLEY. That takes all of your money?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. That is as far as you can go, then?

Admiral MOFFETT. This estimate was put in some time ago, and it was sent down by the Bureau of the Budget.

Mr. KELLEY. We can not go above that.

Admiral MOFFETT. We do not ask any more.

Mr. KELLEY. That is what you want to do with it?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. You want 18 catapaults at \$25,000 each?

Admiral MOFFETT. We want 19 catapaults. We will use one for training purposes and 18 for the battleships, making 19 altogether.

Mr. KELLEY. That will equip all the battleships and you will have one for training purposes.

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I thought you would fix up nine of the battleships between now and the 1st of July?

Admiral MOFFETT. In my program we have 18. We want to put them on the battleships, and we want to put them on many more ships. I am trying to squeeze the funds out of other items.

Mr. KELLEY. I am asking you how you would divide up this \$75,000?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Now, you say you want 19 catapaults, at \$25,000 each, and you will distribute them among the ships as you see fit.

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. You have already provided for ten battleships from funds outside of this appropriation?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. That will leave you to supply eight catapaults for the rest of the battleships?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Leaving eight catapaults for destroyers, if you want to put them on destroyers, or for cruisers or other ships?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. Is there anything else?

Admiral MOFFETT. We think we need for aviation afloat and ashore 5,262 men next year.

Mr. KELLEY. The Bureau of Navigation has put in a request for these men.

DRAFTSMEN AND TECHNICAL SERVICES.

Mr. KELLEY. The next item is, "The services of draftsmen and such other technical services as the Secretary of the Navy may deem necessary may be employed only in the Bureau of Aeronautics to carry into effect the appropriation 'Aviation, Navy,' to be paid from the appropriation, 'Aviation, Navy': Provided, that the expenditures on this account for the fiscal year 1923 shall not exceed \$5,479.60. A statement of the persons employed hereunder, their

duties, and the compensation paid to each shall be made to Congress each year in the annual estimates." What about that?

Commander GRIFFIN. We recommend that that amount be changed to \$74,410. That is covered in that letter.

Mr. KELLEY. This is what the Budget officer has sent in.

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. We can not go above that.

Commander GRIFFIN. The last paragraph of the letter says—

Mr. KELLEY (interposing). Is that the Budget officer's letter?

Commander GRIFFIN. I do not know.

The CHAIRMAN. The Budget law provides that nobody is permitted to send anything in the way of estimates up here except through the Bureau of the Budget.

Commander GRIFFIN. The Budget officer has not made any change in this.

Mr. KELLEY. Tell us what you want to do here.

Admiral MOFFETT. We are and have been hampered in the drafting force more than anything else. It stops everything. We are limited by law in the matter of draftsmen, and it means that if we want to get out an experimental type of plane, a great deal of time is lost. At the present time it takes a year to get the plans for such a plane out, and the only reason we have not been able to get them out more quickly is because we have not the draftsmen to work on the plans.

Mr. KELLEY. Admiral Taylor has draftsmen to spare.

Admiral MOFFETT. We are getting some from him. He is lending some draftsmen to us, but he will not be paying for them after the 1st of July, and we want to pay for them.

Mr. KELLEY. This is to be charged back to the \$790,000 that you have at another place, is it not?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. This is a limitation?

Admiral MOFFETT. Yes, sir. If we could get the draftsmen, we could get our plans out in three months instead of having to wait a year.

STATEMENT SHOWING NUMBER AND SALARIES OF ALL CIVILIAN EMPLOYEES

Mr. KELLEY. I wish you would put in the record a full list of your employees with the rate of pay for each one. You have a force of draftsmen now in your bureau, and I want a list of the number and the rate of pay of each one.

Admiral MOFFETT. I will do so. (See list below.)

Mr. KELLEY. The idea here is that you want other bureaus to assign technical forces to you?

Admiral MOFFETT. Yes, sir.

Mr. KELLEY. I want you to furnish a list of all those positions with the salary attached to each one of them.

Admiral MOFFETT. We will supply that for the record.

Mr. KELLEY. Also put in the record a statement showing where you got them, or from what bureau, and the number from each bureau.

Admiral MOFFETT. I will do so.

Civilian employees, Bureau of Aeronautics.

	Assignment.	Pay (per day).	Roll.	Total.	Total per annum.
EMP-					
ES.					
L.	Draftsman.....	\$5.60	Engineering.....	\$16.40	\$5,133.20
L.	Technical assistant.....	10.80	do.		
B.	Aeronautical engineer.....	7.60	Construction and Repair		
B.	Draftsman.....	4.48	do.		
P.	Aeronautical engineer.....	9.20	do.		
P.	do.	10.00	do.		
A.	Draftsman.....	5.60	do.		
A.	Chief draftsman.....	12.00	do.		
O.	Asst. mat. engineer.....	4.80	do.		
O.	Draftsman.....	8.40	do.		
Z.	Aeronautical engineer.....	8.00	do.		
Z.	Draftsman.....	8.00	do.		
I.	Asst. mat. eng.	7.20	do.		
I.	Draftsman.....	8.00	do.		
H.	do.	6.40	do.	184.64	57,792.32
E.	do.	7.60	do.		
E.	do.	4.48	do.		
D.	do.	7.20	do.		
D.	do.	7.20	do.		
D.	do.	6.40	do.		
D.	do.	4.48	do.		
E.	do.	6.00	do.		
E.	Technical assistant.....	6.40	do.		
M.	do.	6.80	do.		
L.	Aeronautical engineer.....	13.20	do.		
L.	Assistant aeronautical inspector.....	6.80	do.		
S.	Aeronautical engineer.....	8.40	do.		
S.	Civil engineer aid.....	9.60	Yards and Docks.....	9.60	3,004.80
					65,930.32
EMPLOY-					
	Stenographer.....	\$1,400	Operations.....	12,050.00	12,050.00
	do.	1,200	do.		
M.	Clerk.....	1,100	do.		
M.	do.	1,100	do.		
	Chief clerk.....	2,250	do.		
H.	Stenographer.....	1,400	do.		
A.	Clerk.....	1,200	do.		
A.	Stenographer.....	1,200	do.		
	do.	1,200	do.		
	do.	1,200	Engineering.....		
	Clerk.....	1,200	do.		
E.	do.	1,200	do.		
	do.	1,100	do.		
	do.	1,200	do.		
	do.	1,200	do.		
	do.	1,200	do.	14,660.00	14,660.00
	Stenographer.....	1,200	do.		
	Clerk.....	1,200	do.		
	do.	1,200	do.		
A.	Messenger.....	720	do.		
A.	Clerk.....	1,200	do.		
H.	Minor clerk.....	1,840	do.		
H.	Clerk.....	1,400	Navigation.....	2,600.00	2,600.00
J.	Stenographer.....	1,200	do.		
J.	Clerk.....	1,300	Construction and Re- par.....		
	Messenger.....	720	do.		
M.	Stenographer.....	1,200	do.		
N.	Clerk.....	1,100	do.		
3.	do.	1,300	do.		
	do.	1,200	do.		
	Stenographer.....	1,300	do.	17,540.00	17,540.00
	Clerk.....	1,200	do.		
	do.	1,200	do.		
	do.	1,200	do.		
	Stenographer.....	1,600	do.		
	Messenger.....	720	do.		
ne.	Clerk.....	1,100	do.		
E.	do.	1,200	do.		
I.	Stenographer.....	1,200	do.		

Civil Employees, Bureau of Aeronautics—Continued.

Name.	Assignment.	Pay (per day).	Roll.	Total.	Total per annum.
CLERICAL EMPLOYEES—continued.					
Cummings, R. O.	Clerk.....	1,000	Yards and Docks.....	\$2,100.00	\$2,100.00
Summers, Z.	do.....	1,100	do.....		
DeLawder, F. D.	Stenographer.....	1,200	Supplies and Accounts.....	3,900.00	3,900.00
Little, J. B.	Clerk.....	1,200	do.....		
Sullivan, H. C.	Stenographer.....	1,400	do.....		
Total clerical roll.....					\$2,700.00
Total technical roll.....					\$5,300.00
Grand total.....					\$119,900.00

¹ Loan.

Construction and Repair technical roll.....	\$57,792.32	
Construction and Repair clerical roll.....	17,540.00	
		\$75,332.32
Engineering technical roll.....	5,133.20	
Engineering clerical roll.....	14,660.00	
		19,793.20
Yards and Docks technical roll.....	3,000.00	
Yards and Docks clerical roll.....	2,100.00	
		5,100.00
Operations clerical roll.....	12,050.00	12,050.00
Navigation clerical roll.....	2,600.00	2,600.00
Supplies and Accounts clerical roll.....	3,900.00	3,900.00
Grand total.....		\$119,900.00

PROVISION FOR MAKING APPROPRIATIONS TRANSFERABLE.

Mr. KELLEY. Now, referring to the provision making all of your appropriations in one sum, can not that be abandoned now?

Admiral MOFFETT. I would rather not do it. Some items will run out, and if the appropriation for maintenance ran out I do not know what we would do. We move the funds around, and I think we can move them where they will do the most good.

Mr. KELLEY. We have adjusted this according to the best judgment you have as to what is required for the various services, and we do not like to carry this provision making all of the appropriation one sum unless there is some particular and special reason for it.

Admiral MOFFETT. I can see that, but I would rather you would put that off until next year. We had great difficulty in making up these estimates last September. For instance, the estimate for the catapults is not what I would have it now.

Mr. KELLEY. When did your bureau come into existence?

Admiral MOFFETT. On the 1st of September, and while we were trying to get things together, we had to make up these estimates.

Mr. KELLEY. Your excuse for having this provision making all the appropriations one fund is the fact that you have not been at the head of the bureau except for a short time and that the bureau has been in existence only for a few months. That being the case you do not feel quite as certain about the various sums as you would be if you had a full year's experience with it?

Admiral MOFFETT. That is true, and next year we will be willing to do that.

Mr. KELLEY. There will be a lot of material that you could use in connection with the aviation activities that was intended for the ships that will be scrapped. Could you not use a lot of the material

tended for the ships that are to be scrapped in making repairs to engines and that sort of thing?

Admiral MOFFETT. I do not think so. I do not know of anything now that we could use. We do not make any engines ourselves, but we buy our engines.

Mr. KELLEY. But you repair them.

Admiral MOFFETT. Yes, sir. I think that the Bureau of Engineering and the Bureau of Construction and Repair would save a lot of that material and use it. I do not see where we could use it.

Mr. KELLEY. You have a good many hundreds of millions of dollars worth of stuff on hand, have you not?

Admiral MOFFETT. We could use some ships that the Shipping Board has, and we could use, and will use, two of the battle cruisers or airplane carriers. I am sorry that we can not use more than two.

Mr. KELLEY. What about the situation so far as wages are concerned, or how much will you save from a reduction in wages next year from those you are paying the present year?

Admiral MOFFETT. We have not provided anything for that.

Mr. KELLEY. Are you going on paying the same high wages that you are paying this year?

Admiral MOFFETT. Do you mean in the bureau here?

Mr. KELLEY. No.

Admiral MOFFETT. That is all fixed by the Labor Board. That is done by the navy yards.

Mr. KELLEY. In making your estimates, you have not made any allowance at all on account of a reduction or a readjustment of wages below the wages paid during the current year?

Admiral MOFFETT. I can not say that we have.

Mr. KELLEY. You have not made any reduction in anticipation of reduction in the price of material next year?

Admiral MOFFETT. I can not tell you that right now. The estimates were made up on the basis of past experience.

Mr. KELLEY. What is the fact about the price of material as compared with last year, so far as the materials you use in making repairs are concerned?

Admiral MOFFETT. The estimates we put in were based upon the prices we are paying for planes now.

Mr. KELLEY. Material is coming down all the time, is it not?

Admiral MOFFETT. I think it might come down some more.

Mr. KELLEY. Who buys your material?

Admiral MOFFETT. The material we have at the aircraft factory is bought through the supply officer at the yard. Most of the material that we buy is bought on the outside from contractors. We try to buy as much as we can on the outside as much as we can.

Mr. KELLEY. Is there not a reduction in the cost of those materials?

Admiral MOFFETT. In the aircraft factory we are using wood produced during the war or spruce that we had on hand. I think we have a great deal of it still.

Commander GRIFFIN. They have been using that material, and it is running out.

Mr. KELLEY. Is the spruce timber you had on hand running out?

Commander GRIFFIN. Yes, sir.

Mr. KELLEY. I thought you bought up all the spruce on the Pacific coast?

Commander GRIFFIN. I do not know about that, but I know it is running out. We had an enormous store of raw materials that were available for use, but they have dropped down to a very low point.

Mr. KELLEY. There must be a tremendous amount of material of all kinds that the Navy Department will have at its disposal as a result of scrapping those battleships. They will have a great deal of material that has not been fabricated.

Commander GRIFFIN. Those things are shifted around, and we are apt not to gain very much from that. We must put aside what is called reserve material, and that reduces the appropriation. Last year we had to procure material in addition to all these surplus stocks, and whatever we get in the way of material from the Army in 1923 will be charged for. We must make a deduction from our appropriation on account of any material we get from the Army. That money goes back into the Treasury.

Admiral MOFFETT. I do not think there is much material that they have that would be of any benefit to us.

Mr. KELLEY. How much material did you have on hand in connection with aviation at the end of the war?

Admiral MOFFETT. I think we had about \$30,000,000 worth.

Mr. KELLEY. No more than that?

Admiral MOFFETT. I can find out the exact amount.

Mr. KELLEY. We spent up into the billions for that purpose, and we did not use any of it. We never did get any of those planes abroad, did we?

Admiral MOFFETT. Yes, sir; we got planes abroad.

Commander GRIFFIN. Those planes are seven years old, and we have used those materials pretty extensively.

Mr. KELLEY. With an appropriation of \$15,000,000, you have not used up those materials if you had any considerable quantity on hand.

Commander GRIFFIN. Under the appropriation of \$15,000,000 we have been using supplies that we had on hand, but in 1923 we will have a very much smaller amount of supplies to draw from. We will have to pay money for what we use.

TOTAL APPROPRIATIONS AND EXPENDITURE FOR AIRCRAFT.

The CHAIRMAN. \$1,450,000,000 was appropriated for aircraft.

Commander GRIFFIN. We have the total right here.

Mr. KELLEY. Not all of that was for the Navy.

The CHAIRMAN. No.

Commander GRIFFIN. We have the total right here. Of the money allotted, we returned to the Treasury up to 1919, \$117,912,272; out of a total appropriation since aviation started in the Navy of three hundred and forty-four million and some thousand dollars.

Mr. KELLEY. The bulk of the appropriations having been made for the Army?

Commander GRIFFIN. Yes; so that since aviation started in the Navy something like \$250,000,000, in round numbers, has been spent.

Admiral MOFFETT. We have \$2,500,000 that we will have to turn in, or which we will turn in this year, that has accumulated in 1920 and in 1921; I think we could spend it under the law but we

re not going to do so. However, we could use it very advantageously, if it were made a continuing appropriation—the \$2,400,000.

Mr. KELLEY. But you have no appropriations which continue under the law, other than those you have indicated for next year's use?

Admiral MOFFETT. No; that is all.

Mr. KELLEY. You have no sources for your bureau except this appropriation?

Admiral MOFFETT. That is all. As to the \$2,400,000 from the old appropriation, I do not believe Congress meant to reappropriate it, as it went through with the act creating the Bureau of Aeronautics; this act said all unexpended balances would be turned over to the Bureau of Aeronautics, and that amounted to nearly \$3,000,000.

Mr. KELLEY. But that will revert to the Treasury?

Admiral MOFFETT. On the 1st of July; yes, sir.

THURSDAY, MARCH 23, 1922.

BUREAU OF SUPPLIES AND ACCOUNTS.

PAY OF THE NAVY.

STATEMENTS OF ADMIRAL DAVID POTTER, ADMIRAL THOMAS WASHINGTON, CAPT. T. W. LEUTZE, LIEUT. COMMANDER E. A. COBEY, MR. CLYDE REED, AND MR. R. D. VINING.

Mr. KELLEY. We have with us this morning Admiral Potter, Chief of the Bureau of Supplies and Accounts, and his assistants.

PAY AND ALLOWANCES OF COMMISSIONED OFFICERS.

We will take up the item "Pay of the Navy," on page 83 of the bill. "Pay and allowances prescribed by law of officers on sea duty and other duty and officers on waiting orders." How much are you estimating for, Admiral?

Admiral POTTER. The figures I will give are the amounts required in the absence of further legislation in regard to Navy pay.

Mr. KELLEY. That is to say, we are taking the figures under the law as it will stand on the 1st of July, if there is no intervening legislation?

Admiral POTTER. Yes, sir.

Total pay and allowances of officers on sea duty and other duty and officers on waiting orders, \$26,951,883. That does not include the retired list.

Mr. KELLEY. Have you that pay in a division?

Admiral POTTER. Yes, sir.

Four thousand two hundred and ten commissioned officers on sea duty, total pay, \$12,461,997; 205 commissioned warrant officers on sea duty, \$538,351; 712 warrant officers on sea duty, \$1,507,375; 2,351 commissioned officers on shore duty, \$8,051,850; 300 commissioned warrant officers on shore duty, \$747,000; 241 warrant officers on shore duty, \$449,125. I have the midshipmen—2,400 midshipmen,

\$1,872,000. Additional pay of 50 per cent for 425 qualified aviators, \$557,745. Additional pay of 35 per cent for 40 student aviators, \$36,960.

COMMUTATION FOR HEAT AND LIGHT FOR OFFICERS.

Commissioned officers on shore duty, \$656,040. Commissioned warrant officers on shore duty, \$44,640. Warrant officers on shore duty, \$28,800. That is the total for commutation for light and heat, \$729,480.

Perhaps I had better put in the number of rooms. I have also.

Commissioned officers on shore duty, 10,934 rooms. Commissioned warrant officers on shore duty, 744 rooms. Warrant officers on shore duty, 480 rooms.

Mr. KELLEY. That is a total of \$26,951,883?

Admiral POTTER. Yes, sir.

Mr. KELLEY. What would that total be if the existing law continued?

Admiral POTTER. \$32,508,423.

NUMBER OF COMMISSIONED OFFICERS BY GRADES.

Mr. KELLEY. I wish you would detail the commissioned officers giving the number in each grade that you figured on?

Admiral POTTER. Yes, sir; in the ensign grade, 1,055 persons; their total pay in that grade, \$1,989,323.

Mr. KELLEY. That includes how many to be taken in from academy this year?

Mr. REED. Five hundred and thirty-five.

Mr. KELLEY. You take in all of them?

Mr. REED. Yes, sir.

Admiral POTTER. There are various lengths of services. If a group of these fellows has various lengths of service. I do not know whether that is interesting to you.

Mr. KELLEY. What is the unit of pay on the 535?

Mr. REED. That affects the distribution throughout the upper ranks. I have a calculation on that which I will give you, showing the exact amount.

Mr. KELLEY. That is to say, if these are taken in there will be a different arrangement of all the grades?

Mr. REED. Yes, sir.

Mr. KELLEY. These 535 taken in would make more admirals, more captains, more commanders, all the way down?

Mr. REED. Yes, sir.

Mr. KELLEY. Please go ahead and give it on the basis you state and then on the basis of taking in only 200.

Admiral POTTER. Lieutenants, junior grade, 1,016 persons; total pay of \$2,378,680; lieutenants, 2,702 persons at a total pay of \$8,036,064; lieutenant commanders, 919 persons at a total pay of \$3,708,080; commanders, 512 persons at a total pay of \$2,403,120; captains, 294 persons at a total pay of \$1,517,000; rear admirals, the lower half, 28 persons at a total pay of \$178,800; rear admirals, upper half, 24 persons at a total pay of \$203,200; 4 chiefs of bureaus,

at a total pay of \$32,000; vice admirals, 3 at a total pay of \$27,000; admirals, 3 at a total pay of \$30,000; and admiral, chief of naval operations, 1, \$10,000. That is the strength proper of the commissioned officers.

Mr. KELLEY. That makes a total of how much for the commissioned officers?

Admiral POTTER. \$20,513,847.

Mr. KELLEY. Exclusive of commissioned warrant officers?

Admiral POTTER. Exclusive of commissioned warrant officers and warrant officers and exclusive of the midshipmen also.

COMPUTATION TO GRADUATES OF ACADEMY.

Mr. KELLEY. What other computation have you made with reference to the graduates of the academy?

Mr. REED. The computation that I made is on the basis of leaving 535. I can give you that figure. They have reported out a bill for 200 to be commissioned.

Mr. KELLEY. On the basis of 200?

Mr. REED. On the assumption that 200 of the graduates of the academy will be commissioned these figures for pay of officers should be reduced by the pay and allowances of 535, which would be distributed.

Mr. KELLEY. That would change the number in all the other grades?

Mr. REED. Yes, sir.

Mr. KELLEY. Please give us the number by grades on the basis of 200.

Mr. REED. The reduction in numbers would be 3 rear admirals, 13 captains, 23 commanders, 47 lieutenant commanders, 109 lieutenants, and 140 lieutenants (junior grade) and ensigns. The reduction in the amount for pay and allowances under the first item as previously given would be \$1,057,897.

Mr. KELLEY. And that would make the total pay of the commissioned officers what?

Mr. REED. \$19,455,950.

Mr. KELLEY. Instead of the \$20,513,847 that you gave a moment ago?

Mr. REED. Yes, sir.

Mr. KELLEY. Have you the number in each of those grades at the present time, without the class from the academy?

Mr. REED. That number is shifting from day to day. If you wanted to make a comparison, the best thing to do would be to take the figures that were furnished the Naval Affairs Committee as of the 2d of January.

Mr. KELLEY. You say the numbers you have given are the reductions. Do you mean by that the reduction in each grade below the number that would be there if we commissioned the entire class of the academy?

Mr. REED. Yes, sir.

Mr. KELLEY. And not a reduction below the existing number in those grades?

Mr. REED. No, sir; it is a reduction below the figures we used in his estimate, which contemplated commissioning the entire class of the Naval Academy.

Mr. KELLEY. I think, in order to be sure that this goes into the record, that you might insert at this point a table showing the number in each grade of officers, line and staff, on February 1, 1922.

Mr. REED. I will get that from the Bureau of Navigation. Would the statement on the next page, which shows how we recapitulated this statement by corps and length of service, answer the purpose?

Mr. KELLEY. I think that might help us in comprehending the situation, but for the record I am inclined to think it might not be helpful.

DISTRIBUTION OF OFFICERS OF CORPS.

Mr. REED. Do you want it for each grade or distributed by corps?

Mr. KELLEY. Have it distributed by corps. On January 21, 1922, the Naval Affairs Committee was furnished with a list of the commissioned warrant officers in the Navy at that time, or as of January 2. I wish you would insert at this point that table, or one substantially like it, so that we may have a direct comparison.

Mr. REED. There has been practically no change in the commissioned personnel since that time, but there has been an increase in the warrant officers. I think it would be better to give later figures on the warrant officers.

Mr. KELLEY. Let us have the most recent information you have.

Mr. REED. We will supply that for the record.

Total actual number of officers on active list, line and staff, exclusive of commissioned warrant and warrant officers, February 1, 1922, distributed in the several grades and ranks, showing the additional numbers in each:

	Reg- ular num- ber.	Addi- tional num- ber.	Total.		Reg- ular num- ber.	Addi- tional num- ber.	Total.
Line:				Professors of mathematics:			
Rear admirals.....	41	8	49	Captains.....	3	1	4
Captains.....	163	13	176	Commanders.....	4	1	5
Commanders.....	245	30	315	Total.....	7	2	9
Lieutenant com- manders.....	570	0	570	Chaplain Corps:			
Lieutenants.....	1,323	1	1,324	Captains.....	12	0	12
Lieutenants (junior grade).....	497	0	497	Commanders.....	2	0	2
Ensigns.....	1,205	0	1,205	Lieutenant com- manders.....	2	0	2
Total.....	4,084	52	4,136	Lieutenants.....	48	0	48
Medical Corps:				Lieutenants (junior grade).....	14	0	14
Rear admirals.....	4	0	4	Acting chaplains.....	9	0	9
Captains.....	33	1	34	Total.....	87	0	87
Commanders.....	65	0	65	Supply Corps:			
Lieutenant com- manders.....	150	0	150	Rear admirals.....	3	0	3
Lieutenants.....	537	0	537	Captains.....	24	1	25
Lieutenants (junior grade).....	19	0	19	Commanders.....	49	0	49
Acting assistant sur- geons.....	5	0	5	Lieutenant com- manders.....	80	0	80
Total.....	813	1	814	Lieutenants.....	254	1	255
Dental Corps:				Lieutenants (junior grade).....	122	0	122
Lieutenant com- manders.....	26	0	26	Ensigns.....	80	0	80
Lieutenants.....	124	0	124	Total.....	612	2	614
Lieutenants (junior grade).....	9	0	9	Construction Corps:			
Total.....	159	0	159	Rear admirals.....	1	1	2
				Captains.....	17	0	17
				Commanders.....	28	0	28

	Reg- ular num- ber.	Addi- tional num- ber.	Total.		Reg- ular num- ber.	Addi- tional num- ber.	Total.
Construction Corps—Con-				Civil Engineer Corps—			
Lieutenant com-				Continued.			
manders.....	10	0	10	Lieutenant com-	7	0	7
Lieutenants.....	128	0	128	manders.....	49	0	49
Lieutenants (junior	18	0	18	Lieutenants.....	28	0	28
grade).....				Lieutenants (junior			
Total.....	202	1	203	grade).....			
Civil Engineer Corps:				Total.....	105	2	107
Rear admirals.....	1	1	2	Total line.....	4,084	52	4,136
Captains.....	5	1	6	Total staff.....	1,995	8	2,003
Commanders.....	15	0	15	Grand total.....	6,079	60	6,139

CHIEF WARRANT AND WARRANT OFFICERS.

	Line and staff.	Total.
Chief boatswains.....	79	
Boatswains.....	177	
Chief gunners.....	79	256
Gunners.....	231	
Chief machinists.....	128	310
Machinists.....	150	
Chief carpenters.....	56	278
Carpenters.....	71	
Chief pharmacists.....	110	127
Pharmacists.....	16	
Chief pay clerks.....	37	126
Pay clerks.....	148	
Acting pay clerks.....	92	
		277
Grand total.....		1,374

NUMBER, GRADE, AND SALARY OF COMMISSIONED WARRANT OFFICERS.

Mr. KELLEY. We have covered the commissioned officers on the active list, and we will now take up the warrant officers.

Admiral POTTER. The commissioned warrant officers having the pay of lieutenants for 20 years' service number 29 persons, at a total compensation of \$99,792; the commissioned warrant officers having the pay of lieutenant, junior grade, 153 persons, at a pay of \$432,340; commissioned warrant officers having the pay of ensign, 323 persons, at a pay of \$753,219; making a total for commissioned warrant officers in pay of \$1,285,351.

Mr. KELLEY. Now we will take up the warrant officers.

Admiral POTTER. Warrant officers, 952 persons, with a pay of \$1,956,500.

NUMBER, CLASS, AND SALARY OF MIDSHIPMEN.

Mr. KELLEY. Now, the midshipmen.

Admiral POTTER. This is the 2,400 figure.

Mr. KELLEY. That includes the three classes?

Admiral POTTER. Four classes.

Mr. KELLEY. That includes what we are short and the incoming class next year?

Admiral POTTER. Yes, sir. There are 2,400 midshipmen with a pay of \$1,872,000.

Mr. KELLEY. That makes a total, if you commission all the midshipmen, for the pay of officers on active duty—

Admiral POTTER (interposing). A total of \$25,627,698.

Mr. KELLEY. What would be the total if you commissioned 200 of them?

Mr. REED. \$24,569,701.

PAY OF OFFICERS ON RETIRED LIST.

Mr. KELLEY. The next is pay of officers on the retired list.

Admiral POTTER. Seven hundred and ninety commissioned officers, unemployed, \$2,673,090; 152 commissioned warrant officers, unemployed, \$291,750; 93 warrant officers, \$150,000; making a total for pay of officers on the retired list, for 1,035 persons, \$3,114,840.

Mr. KELLEY. Under the law an officer is supposed to receive three-fourths of the pay of the rank or grade in which he retired?

Admiral POTTER. Yes, sir; unless there is some exceptional law that makes some exceptional rate.

Mr. REED. There are one or two men on the retired list drawing furlough pay.

Mr. KELLEY. Do any of these sums contemplate the employment of retired officers on the active list next year?

Admiral POTTER. No, sir; it contemplates none assigned to active duty.

Mr. BYRNES. Do you mean there will be none?

Admiral POTTER. No, sir. Of course, the Secretary has the right, with their permission, to assign them to any active duty, but they can not draw over the pay of a lieutenant commander.

Mr. BYRNES. If he does assign a retired officer to active duty—

Admiral POTTER (interposing). He can not draw over the pay of a lieutenant commander on the active list.

Mr. BYRNES. Does the law so provide?

Admiral POTTER. Yes, sir; in time of peace.

Mr. BYRNES. You have no retired officers on the active list to-day?

Admiral POTTER. There are very few. I saw the other day that there were about seven or eight.

COMMUTATION OF QUARTERS FOR OFFICERS, GUNNERS, MACHINISTS, NAVAL CONSTRUCTORS, ETC.

Mr. KELLEY. Commutation of quarters for officers, including boat-swains, gunners, etc.

Admiral POTTER. For commissioned officers on shore duty, 792 rooms, at a money value of \$1,149,408; commissioned warrant officers on shore duty, 744 rooms, at a money value of \$107,136; warrant officers on shore duty, 374 rooms, at a money value of \$53,856; making a total of money value, \$1,310,400.

Mr. REED. I want to call attention to what might be considered a discrepancy between the number of rooms on which the computation of quarters is figured and the commutation for heat and light.

in allowing commutation of quarters, we made a deduction for officers on shore duty occupying Government quarters. However, in that case they are entitled to their heat and light, which is charged into the appropriation, and the cost runs about the same as the commutation allowance. So that for convenience of calculation, we used the full number of rooms to which all officers on shore duty would be entitled.

Mr. KELLEY. What you say accounts for the difference between 9,934 and 7,982?

Mr. REED. Yes, sir. There 52 warrant officers now occupying Government quarters.

Mr. KELLEY. If the provisions of the existing law were extended to July 1, how much would that make this appropriation?

Admiral POTTER. That would make the total item, \$3,292,848, for commutation of quarters. That would bring the noncommissioned officers into the purview of allowance of quarters at sea.

Mr. KELLEY. The additional sum required by reason of commutation of quarters for officers at sea amounts to \$1,982,448.

Admiral POTTER. Yes, sir.

Mr. KELLEY. If the present law were extended this amount would be \$3,292,848?

Admiral POTTER. Yes, sir.

COMMUTATION OF QUARTERS, NURSES CORPS.

Mr. KELLEY. The next item is for the Nurses Corps.

Admiral POTTER. For commutation of quarters, Nurses Corps, the estimate is \$1,000. This estimate is based upon past experience. There are 433 persons in the Nurses Corps.

Mr. REED. They receive commutation under certain circumstances.

Mr. KELLEY. The amount is almost negligible?

Mr. REED. Yes, sir; most of them have quarters. It varies from year to year.

HIRE OF QUARTERS FOR OFFICERS SERVING WITH TROOPS.

Mr. KELLEY. The next item is for hire of quarters for officers serving with troops where there are no public quarters.

Admiral POTTER. That estimate is \$20,000.

Mr. REED. Those are cases where the officers hire quarters because the vessel may become uninhabitable while undergoing repairs, particularly in a foreign port.

Admiral POTTER. That happened in the case of the *Scorpion* at Constantinople, where they had to live on shore for a long time.

PAY OF RETIRED ENLISTED MEN.

Mr. KELLEY. The next is pay of retired enlisted men.

Admiral POTTER. There are 653 persons, at a pay of \$678,566.

Mr. KELLEY. That is based on the current rate of expenditure?

Admiral POTTER. Yes, sir. We have a table showing the number persons in each grade and the actual pay.

PAY OF MEN REENLISTING WITH HONORABLE DISCHARGE.

Mr. KELLEY. I do not believe that will be useful to us. The next item is for extra pay to men reenlisting with honorable discharge.

Admiral POTTER. That is \$3,772,000. I have the details of that.

Mr. KELLEY. Give us the details.

Mr. REED. The honorable discharge gratuity received by enlisted men on reenlistment is limited both by period of prior service and by the term for which the reenlistment is made. At the present time the reenlistments are made only for a period of four years, and not for three years and two years, so that in preparing the estimate the Bureau of Navigation gave the distribution by prior service of the men who were expected to reenlist, based on two, three, and four years.

Mr. KELLEY. In figuring the discharge gratuity, you based it on the length of service in the expiring enlistments?

Mr. REED. Yes, sir.

Mr. KELLEY. That is to say, if a man served a two-year enlistment he would get a two-month gratuity; if he serves a three-year enlistment he gets a three-month gratuity; and if he serves a four-year enlistment he gets a four-month gratuity?

Mr. REED. Yes, sir.

Mr. KELLEY. You have made this calculation upon that basis?

Mr. REED. Yes, sir. This is based on a total of 12,000 reenlistments. The Bureau of Navigation gave this distribution by grades and length of service, and the amount actually required for the payment of the gratuities would, of course, depend upon the number of years service of the men who reenlist.

Mr. KELLEY. And the total is \$3,772,059?

Mr. REED. Yes, sir. We dropped the \$59 in our estimates.

INTEREST OF DEPOSITS.

Admiral POTTER. The next is interest on deposits, \$10,000. That is the estimated amount to be paid men for putting their money in what we call the ship's bank, on which they are allowed 4 per cent interest.

Mr. KELLEY. That money goes into the Treasury?

Admiral POTTER. Yes, sir.

PAY OF PETTY OFFICERS, SEAMEN, ETC.

Mr. KELLEY. The next is pay of petty officers, seamen, landsmen, apprentice seamen, etc., based on an enlisted force of 65,000.

Admiral POTTER. The total of that is \$57,341,846.

Mr. KELLEY. That would be under the present pay, and not according to the pay that will be in effect.

Admiral POTTER. Under the other rate it would be \$51,832,351.

Mr. KELLEY. On the basis of the present pay, that would be how much?

Admiral POTTER. \$57,341,846.

Mr. KELLEY. That is the full pay of the enlisted personnel?

Admiral POTTER. On the active list, on the basis of 65,000.

Mr. KELLEY. And no special items for apprentice seamen are added to that anywhere?

Mr. REED. No, sir. There is an allowance included in there of \$370,674 for additional pay to enlisted men on aviation duty. They are entitled to 50 per cent additional.

NUMBER AND GRADE OF PETTY OFFICERS AND ENLISTED MEN.

Mr. KELLEY. Give the distribution of this \$51,832,351 by classes.

Mr. REED. Chief petty officers, 6,762. I can not give you the money on that without making a subtraction, but if you want the money distribution, I will insert that in the record.

Mr. KELLEY. The numbers will do.

Mr. REED. Chief petty officers, 6,762; chief petty officers of the first class, 10,493; chief petty officers of the second class, 9,057; chief petty officers of the third class, 5,889; firemen of the first class, 3,368; firemen of the second class, 2,327; firemen of the third class, 3,360; nonrated men of the first class, 11,512; nonrated men of the second class, 10,388; cabin cooks and stewards, 235; wardroom cooks and stewards, 412; steerage cooks and stewards, 51; warrant officers' cooks and stewards, 111; mess attendants of the first class, 814; mess attendants of the second class, 814; mess attendants of the third class, 407, making a total of 65,000.

ADDITIONAL PAY FOR AVIATION.

Mr. KELLEY. Do you want to make some allowance there to take care of additional pay for aviation?

Mr. REED. Yes, sir; for aviation. The 50 per cent additional for aviation covers additional pay for the following: Chief petty officers, 340, \$288,252; petty officers, first class, 110, \$60,588; petty officers, second class, 40, \$18,144; petty officers, third class, 10, \$3,690, making a total additional for aviation pay of \$370,674.

Mr. KELLEY. And that should be added to the \$51,832,351?

Mr. REED. No, sir; that is included in the \$51,832,351.

PAY OF PRISONERS.

Mr. KELLEY. Pay of enlisted men undergoing sentence of court-martial.

Admiral POTTER. Nine hundred and ten, at a total pay of \$520,520.

Mr. KELLEY. They get what pay when they are under sentence?

Mr. REED. The amount of pay in the rating they hold is charged against the appropriation, although the men themselves only receive each amount as the court-martial may allow them, and it averages a month. The average pay has been running about \$572, and for that reason we use that figure.

Mr. KELLEY. That is about what the courts-martial have allowed them to draw.

Mr. REED. No; the men do not receive all of that, and none of them receive more than \$3 a month for their own benefit.

Admiral POTTER. That becomes forfeited to the naval hospital fund.

Mr. KELLEY. This is one of the sources for building up the naval hospital fund?

Admiral POTTER. Yes, sir.

Mr. KELLEY. And will the Secretary's new regulation make any difference in this particular?

Mr. REED. It will make a difference if the men are reduced in their ratings because the pay will go down. Of course, this is less than the actual number of prisoners at the present time, and I did not see any basis for reducing the average rate for next year.

DIFFICULTY OF REDUCING NUMBER OF CHIEF PETTY OFFICERS.

Mr. OLIVER. Right in that connection, Admiral Washington, suppose you establish seven ratings in the Navy, how long will a young man taken in as a recruit be required to serve before he is eligible for promotion from one rating to another?

Admiral WASHINGTON. Under the present circumstances, and with the possible reduction of the Navy to 65,000, it would be an indefinite time, because we now have chief petty officers and petty officers, first and second classes, in excess. The numbers which have just been read off there are not what we have in the Navy; they are fictitious numbers of rated men based on 65,000 total enlisted force, but we have actually more than 94,000 men now in the Navy, and consequently those numbers read have no bearing on the actual existing Navy.

Mr. OLIVER. I think I said something to Captain Williams about that, and we are interested here because under a pending bill, which will probably come up very soon, you are reducing the pay of the new man coming in, and in view of the fact that the chance for his promotion is so slight, I am afraid you are going to seriously embarrass yourselves in securing suitable young men whom you would have reason to hope could qualify later for the higher ratings unless you can offer a better inducement to them.

Admiral WASHINGTON. It might make it difficult if abnormal conditions continue. The recruiting service does not think that the slight reduction of pay alone will interfere with enlistments. In the numbers read off there, for instance, 6,700, as I recall, chief petty officers, are not what we have. In reality we have about 3,000 more than that, or perhaps 3,500 more, and apparently in this pay no provision is made for them. As you have estimated it there, I assume the 3,500 are not to be paid.

Mr. OLIVER. Mr. Kelley and I are very familiar with the trouble the Navy had prior to 1916 in maintaining even the 50,000, and we had to make an appropriation of funds in order to induce them to come in, and that has been one of the fears I have had in reference to reducing their pay, especially in view of this stagnation you speak of.

Mr. KELLEY. Where did you get this distribution?

Mr. REED. It was furnished by the Bureau of Navigation.

Mr. KELLEY. On the basis of 65,000 men?

Mr. REED. Yes, sir.

Admiral WASHINGTON. That is what we would require in the way of petty officers and others if the total force were limited to 65,000; but, understand, we have 94,000 in the Navy, and when we reduce to

5,000 the petty officers do not come down proportionately—the loss is almost entirely in the lower grades. For instance, we can by granting voluntary discharges almost get rid of every seaman, every seaman second class, and every seaman apprentice before any considerable number of chief petty officers would request their discharges. Now, in that 6,700 number we would have what we need or a rounded Navy of only 65,000, but on the 1st of January last we had just about, say, 10,500 chief petty officers, due to the war conditions, and as he read the numbers and pay off there I do not assume provision is made for the pay of this extra 3,500 or more men whom we now actually have in the rating of chief petty officer.

Mr. KELLEY. I assume the Bureau of Supplies and Accounts made him pay table on the basis of information furnished them by you for the distribution of 65,000 men.

Admiral WASHINGTON. Yes; but if we started with a new Navy absolutely—

Mr. KELLEY (interposing). But in starting with a new Navy I suppose you took into consideration the new basis.

Admiral WASHINGTON. We supplied them with the number of petty officers we needed for a Navy of 65,000 men, but we have a Navy on our hands of 94,200.

Mr. KELLEY. You will have to get rid of the difference, will you not?

Admiral WASHINGTON. Yes, sir; and that is the difficulty; but we can not get rid of them on the 1st day of July, and that is when his bill goes into effect. That has got to be done by a gradual process. Those men have a contract with the Navy through a four-year enlistment, and unless a law is passed by which we arbitrarily throw them out, I do not see how it is possible for us to come down to the condition you suggest without reasonable time and doing justice to the enlisted men.

Mr. OLIVER. In other words, if we should fail to appropriate in such a way as to take care of the binding contract which they have with the Government, there would still exist an obligation against the Government for their pay?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. Do they not have a clause in all their enlistment contract that they enlist for four years unless sooner discharged?

Admiral WASHINGTON. I do not think that is in there, but we have always exercised that right; the department has always exercised the right of discharging a man from his enlistment, but the man himself has no right whatever to sever an enlistment from his side of the contract. If we sever without further consideration the enlistment of 2,500 or 3,000 chief petty officers, it would mean the absolute demoralization of the Navy.

Mr. OLIVER. In other words, they probably acquiesce in your assertion of a right which, perhaps, does not legally exist?

Admiral WASHINGTON. They sometimes do not acquiesce in it; they sometimes accept it, but with a great deal of objection, resentment, and regret.

Mr. KELLEY. You do not intend to have all petty officers in the navy, do you?

Admiral WASHINGTON. No, sir; but the condition you are for on us puts us in a place where it is up to you to take the necessary steps to get rid of these people or provide pay for them.

Mr. KELLEY. If we furnish the money—

Admiral WASHINGTON (interposing). But you are not furnishing it.

Mr. KELLEY (continuing). For 65,000 men, of course, you will induce the Navy to 65,000 men in the proper manner.

Admiral WASHINGTON. There could be no proper manner; it is a violation of the contract with the enlisted man.

Mr. KELLEY. Why is it any more of a violation of a contract with those at the top of the list than with those at the bottom?

Admiral WASHINGTON. Because those at the bottom of the list go out much more willingly and because they see very little head ahead, but a man who has been in the service, we will say, from 25 or 30 years is not going to vacate the right he has secured those long periods instantaneously, and it is not human to expect him to do it.

Mr. OLIVER. In other words, many holding the position of petty officer will only have a short time to serve before they can be placed on the retired list?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. And many were induced to return to the service by invitation, as I understand, following this enabling legislation that was recently passed, with a view of serving for a short time and thereby being enabled to retire?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. How many retired enlisted men have we in the Navy?

Admiral WASHINGTON. We have about 650, I should say.

Mr. KELLEY. So they do not seem to avail themselves of that privilege very fast, if you only have 600 in the entire Navy for all the years.

Admiral WASHINGTON. No; because many of them do not desire to avail themselves of that privilege.

Mr. KELLEY. Then your answer to Mr. Oliver would not carry very much weight?

Admiral WASHINGTON. Yes, sir. The naval reserve, for which you provide nothing in your bill, is the job which they seek.

Mr. KELLEY. We have not reached the naval reserve in the bill.

Admiral WASHINGTON. I understand there is not to be any.

Mr. KELLEY. For the fleet reserve?

Admiral WASHINGTON. Yes.

Mr. KELLEY. I do not think you are right about that.

Admiral WASHINGTON. I am very glad to hear it.

Mr. KELLEY. That is where these men would go—into the fleet reserve.

Admiral WASHINGTON. That is where we are trying to get them to go, seeing ahead as we do what the committee is evidently trying to do.

Mr. KELLEY. If they serve for 16 years what pay would they get when they go into the fleet reserve?

Admiral WASHINGTON. It would depend on the individual man and his rating, but I think the average is about \$780 or something like that. I have not the figures at hand.

Admiral POTTER. About \$75 a month.

Mr. KELLEY. Then they go out into private life with that annuity of \$75 a month?

Admiral WASHINGTON. But subject to call at all times.

Mr. KELLEY. Do you think you will have much trouble in getting these men to go under these circumstances?

Admiral WASHINGTON. We do have.

Mr. KELLEY. Suppose no action is taken in the matter of increasing the pay beyond that of 1908, how will that change the situation?

Admiral WASHINGTON. It would not change it materially, because they have been in the Navy too long to willingly abandon the rights they have gained and it has been their life work.

Mr. KELLEY. My recollection is that we increased the pay of the petty officers in the Navy on your recommendation.

Admiral WASHINGTON. Two years ago.

Mr. KELLEY. Because they were all leaving you.

Admiral WASHINGTON. And I hope you will continue it.

Mr. KELLEY. And now you say they will stay whether we cut that or not.

Admiral WASHINGTON. Of course they will, Governor.

Mr. KELLEY. Why did they not stay before?

Admiral WASHINGTON. The conditions outside—high cost of living and their families—were such that they could not then meet their needs on their navy pay; the men could get employment at greatly higher pay; and I told you time and time again that men would leave the Navy and go to the Shipping Board and elsewhere, where the pay had doubled and trebled, and then come back to the Navy because it was their life work, and they returned to follow and continue this naval service so that they could in the end gain the service or retired list.

Mr. KELLEY. Then it is your contention now that we do not need to continue this pay and that we can keep the men?

Admiral WASHINGTON. No, sir; I did not intimate anything like that.

Mr. KELLEY. What did you say?

Admiral WASHINGTON. I say that those men, the 65,000 you are providing for in that bill, are totally inadequate for the condition which the Navy now finds itself, unless you are going to absolutely demoralize the Navy and throw it into the discard. You can not come down instantly from 10,000 chief petty officers, violate the contract the Navy has with them, and still say you are doing the most and square thing with them. It is not right. Those men are as much right in certain respects, morally, equitably, and almost legally—and they have been led to believe it—as the rest of us, and think it is the most serious blow that has even confronted the Navy, but you are doing right now, trying to reduce to 65,000 men regardless of all consideration of the moral, if not legal, rights of the men who would be summarily discharged. The word has gone out among these men broadcast and it has had a most dreadful effect, and that effect is going to increase all along and so long as this uncertainty as to action and kind of action remains unsettled.

Mr. KELLEY. How about the officers of the Naval Reserve Force?

Admiral WASHINGTON. I think the way in which they are being treated by this committee is pretty bad.

Mr. KELLEY. You think we ought to keep them, too?

Admiral WASHINGTON. Which ones, sir?

Mr. KELLEY. The officers in the Naval Reserve Force whom you still have in the Navy on active duty.

Admiral WASHINGTON. I should like very much to keep them; they are doing good service, very good service, and some of them have been in the naval service for 25 years and yet, without any warning or anything prior to the action of the present committee in the present session, we propose to cut them out. Of course, there is an element of fair dealing which appeals to me very largely.

DEFICIENCY OF MONEY FOR TRANSPORTATION CAUSED BY THE REDUCTION OF THE NAVY TO 65,000 MEN.

Mr. KELLEY. Your idea is that we ought to keep all the men and all the officers who are in the Navy now?

Admiral WASHINGTON. I am perfectly willing to consent to a reduction now that the war is over; but I do not think the reduction should be down to 65,000, making a reduction of 29,000.

Mr. KELLEY. How many have you now?

Admiral WASHINGTON. We had yesterday by count 94,270. We have tried to act honestly and fairly with these men. Two and three years ago—of which you are well aware, because the matter was explained to you in great detail—we had great difficulty in enlisting men. We enlisted men in the lower ratings and we have had those men with us now two, three, and nearly four years. The two-year men will practically all go out this year and the next year, and that large number going out after short enlistment term periods has caused this heavy transportation expense, of which you were also fully aware two years ago and last year—the discharging and sending home of those men has caused that deficiency. That matter was fully explained; and, if you will recall, you agreed with me that I was to come to you in December last and it would be all right and you would grant the deficiency without hesitation as you were well aware it would necessarily be incurred.

Mr. KELLEY. You got your deficiency, did you not?

Admiral WASHINGTON. No, sir; the deficiency is doubtful; I mean by doubtful that I do not think it will meet the conditions, because now we are confronted with a possibility of having only 65,000 men, and it looks as though we must discharge a great number more. Therefore these men under the law—

Mr. KELLEY (interposing). That is true, and if we further reduce the Navy you would be entitled to a further deficiency.

Admiral WASHINGTON. But some of these men are going out ahead of the prospective time, seeing the manner in which the committee is acting toward them. So that a good many men are going out sooner than they would have otherwise gone; whether there will be hundreds or thousands I can not say, but some undoubtedly will.

Mr. KELLEY. We will pay their fares home; you need not worry about that.

Admiral WASHINGTON. But you have not given us the money with which to pay their fares home.

Mr. KELLEY. If they go home in larger numbers than you anticipate you can come back.

Admiral WASHINGTON. That is the experience we had last year, and we had as much difficulty——

Mr. KELLEY (interposing). Did we not give you all you asked?

Admiral WASHINGTON. That I do not know; I was not present.

Mr. KELLEY. Well, we did, anyhow.

Admiral WASHINGTON. But we will need more than that in all probability.

Mr. KELLEY. That is due to something that is in prospect and nothing that has happened so far.

Admiral WASHINGTON. That is due to the action you are taking here and the notice that is going out in the newspapers as to the way these men will be treated, after we have gone out into the country and told them that if they made this their life work they would be taken care of, and that the Navy offered them an excellent future which, in their class of life, was greatly better than they could ordinarily expect in civil life.

Mr. OLIVER. In order to have the record disclose exactly what did happen over two years ago, when this increase was provided for the petty officers as well as the enlisted personnel, you found at that time this condition confronting you: That employment was readily obtained on the outside at very advantageous terms?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. And the prices paid were so greatly disproportionate to those you were paying in the Navy that it was impossible to hold some very essential men in these grades?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. Your statement to the committee was that it would not be necessary to meet those prices, but that if there was a reasonable increase you felt confident they would remain with you and that some would return who had left?

Admiral WASHINGTON. Yes; that is correct, but coupled with that was the fact that we were holding out to them that the Navy was to be a life work for them.

Mr. OLIVER. I am going to bring that out. Then you gave as your reason why they would return, even though they were getting less in the Navy than they could at that time secure on the outside, the fact that they loved the Navy work?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. That they felt it would be a career and they had associations there, and that was the reason why you explained to us that a reasonable increase would bring them back, even though it did not meet the high prices paid on the outside?

Admiral WASHINGTON. That is correct.

Mr. OLIVER. And my recollection is that so pressing was the need for action at that time that the committee, before the bill was reported, authorized, I think, Mr. Kelley himself to make a statement through the papers telling these men that the committee, no matter what its attitude might be with reference to the commissioned personnel, would certainly provide some increase for these ratings?

Admiral WASHINGTON. That is my understanding.

Mr. OLIVER. That is my recollection about it.

Mr. KELLEY. The fact that we did it bears that out, but we made it effective for a certain period of time.

Admiral WASHINGTON. Yes; that is correct.

Mr. KELLEY. There was nothing in the act which we passed at that time which would carry the hope that this would be permanent.

Admiral WASHINGTON. I do not recollect about its permanency, except that I hoped you would make it permanent. But what I am driving at is the fact that in appropriating, as I presume you have in mind, for 6,700 chief petty officers you are not meeting the condition, and I wish that to be distinctly understood.

POSSIBLE EFFECT ON NAVY BY REDUCTION TO 65,000 MEN.

Mr. KELLEY. Your position is that the reduction in the higher grades would be too drastic?

Admiral WASHINGTON. It would practically amount to striking a deathblow to the morale of the Navy.

Mr. KELLEY. You are not saying that we are not providing the transportation and that kind of thing? That is not what you have reference to?

Admiral WASHINGTON. I said that I doubted whether the amount we asked for would be sufficient to meet the conditions if you reduced the Navy to anything like 65,000, because we have got to pay the expenses of these men, whose discharges your action would compel, some whom we are not now anticipating will go until the expiration of their enlistments.

Mr. KELLEY. You have been away and Captain Williams has appeared in your place?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. And he has furnished the figures with reference to transportation and recruiting.

Admiral WASHINGTON. Yes, sir; and I am familiar with them, but they do not contemplate the effect of a reduction of the Navy to 65,000. That is not contemplated in them. You have from twenty to thirty thousand more men to provide for under that item of transportation and recruiting if we reduce to 65,000, and the figures submitted by Captain Williams did not cover that.

Mr. KELLEY. You are talking about the deficiency while I am talking about the figures Captain Williams presented to us the other day.

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. In which he pointed out that if this reduction were made there would be in this year, before the 1st of July, a further need for transportation amounting to some \$1,500,000, as I recollect. Of course, if this reduction should be made to 65,000, it would be necessary to provide you with ample funds for transportation, so there is no dispute between us on that proposition.

Admiral WASHINGTON. That is, figured on that \$1,500,000 basis.

Mr. KELLEY. The other thing, which was of more serious import, was what you were saying as to the feasibility of making these reductions in the higher grades in accordance with the table which Mr. Reed has figured on.

Admiral WASHINGTON. Yes; but the numbers Mr. Reed has there, as I recall them, and I have a pretty clear recollection of them, are fictitious and hypothetical. They are not what we have, and to get

own to those numbers read by him we have got to drastically fire these 29,000 enlisted men we have above those numbers and violate every moral obligation we entered into with them a year or so ago.

Mr. KELLEY. If the Navy should be reduced to 65,000, your method of meeting that reduction would be not to disturb the higher ratings very much but take the men out of the lower ratings?

Admiral WASHINGTON. Not at all.

Mr. KELLEY. How would you do it?

Admiral WASHINGTON. We have got to work it out and do it as suitably as we can. We can not afford to chuck out 3,000 chief petty officers; the effect of that would be demoralizing.

Mr. KELLEY. How would you do it? That is what I am getting at.

Admiral WASHINGTON. I certainly would not do it in the manner which the Naval Affairs Committee is attempting to do it in the bill which they have just introduced in the House if it can be avoided—that is, to kill all idea of continuous service in the Navy, would be the effect of that bill if passed.

Mr. KELLEY. I have not read that bill, so I do not know what it is out.

Admiral WASHINGTON. That bill, if passed, will practically kill the Navy.

Mr. OLIVER. In brief, what does it provide?

Admiral WASHINGTON. The last proviso is that no man shall be allowed to reenlist in the Navy who has had less than 12 years' service, without special permission from the Secretary, but I suspect the Secretary would be giving wholesale special permission in order to prevent what the bill seems to intend. The intent of Congress would be there if that bill were passed, and that would appear as indicating that continuous-service men were not desired.

Mr. KELLEY. Of course, we are proceeding only on existing law; we have no thought of any legislation, but if Congress decides that you are to have 65,000 men then it is not up to you to say whether that is right or wrong.

Admiral WASHINGTON. No; not at all.

Mr. KELLEY. It is for you to get rid of the men down to that number.

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. Now, how would you do that?

Admiral WASHINGTON. That is a thing we would have to give careful consideration to.

Mr. KELLEY. Have you not done that, and up to this time have you not given it consideration?

Admiral WASHINGTON. Oh, yes; but somehow or other I can not bring myself to believe that Congress really has that in mind.

Mr. KELLEY. Well, you had better get that in your head pretty fast.

Admiral WASHINGTON. Well, it will come hard, and if it is done do not see anything short of your almost giving a deathblow to the fine morale which exists in the Navy.

Mr. KELLEY. You think the only way we can keep the Navy up to keep 100,000 men in it?

Admiral WASHINGTON. I would like to see you carry 96,000.

Mr. KELLEY. Otherwise we will destroy the Navy?

Admiral WASHINGTON. I did not say anything of that kind.

Mr. KELLEY. I am trying to get your viewpoint.

Admiral WASHINGTON. My viewpoint is that if the Navy were made 96,000 we would get along very satisfactorily.

Mr. KELLEY. But if Congress decides on 65,000 the Navy is destroyed?

Admiral WASHINGTON. Oh, no; I did not say that. I said it would have a demoralizing effect, a very serious and severe one, but I think the Navy can survive this blow, which I regard as the most serious one that has been directed at the Navy within my knowledge and possibly within the history of the Navy. But I think the Navy will survive it. The Navy can do a great many things to pull itself together and the struggle will be to do that and accomplish it and bring us back on a firm footing again. But I do feel that the effect on these chief petty officers and the others who would be so seriously served by a reduction to 65,000 is something to which we must give very, very careful consideration. You asked how it could be done.

DESIRE TO INDUCE CHIEF PETTY OFFICERS TO JOIN FLEET RESERVE.

One effort I should make would be to induce these men to go into the fleet reserve, where we have promised to send them; we have held that out to them, and in that way we can get some reduction very satisfactorily. Recently we have had as many as probably 1,000 to go into it.

Mr. KELLEY. Have you worked out a table showing how long these chief petty officers and others have served?

Admiral WASHINGTON. I have it, yes; but I do not have it with me.

Mr. REED. That is being compiled, but they told me a few days ago it would take more than two weeks to get it together because they did not have their cards punched in that way.

Mr. KELLEY. Would the first step be to know how many men in the petty officer class had served 12 years?

Admiral WASHINGTON. Sixteen.

Mr. KELLEY. And then how many had served 20 years?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. If you knew that then you could tell how many might be induced to go into the fleet reserve under the existing law.

Admiral WASHINGTON. That would merely be a guess, and it would not tell but approximately what the men will do. A great many of these sailormen are rather hard headed about leaving the Navy proper.

Mr. KELLEY. You could probably tell approximately how many of these men have had less than 12 years' service.

Admiral WASHINGTON. We can tell you very quickly how many have had various years of service, but we can not tell what is in the minds of those men and whether they would take advantage of the proposed law and transfer to the reserve.

Mr. KELLEY. Mr. Reed said it would take two weeks to get that data.

Admiral WASHINGTON. No; not at all.

Mr. REED. As to the pay ratings; yes, sir.

Admiral WASHINGTON. I can give you the numbers, and that is what I meant.

Mr. BYRNES. From your records, can you tell how many are eligible?

Admiral WASHINGTON. Yes; very readily.

Mr. REED. They have the length of service and they can tell you how many have served a certain length of time, but they have not that number distributed by pay grades.

Mr. OLIVER. Could you supply for the record a list showing the number in the grades and, perhaps, taken the seven grades which you hereafter hope to adopt and simply give the numbers in those even grades?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. Giving the number of apprentices, and so on?

Admiral WASHINGTON. The number in each grade?

Mr. OLIVER. Yes.

Distribution by pay grades of enlisted men in the United States Navy, Mar. 14, 1922, separated by the grades specified in the McKenzie bill as approximately as can be estimated.

	Regular Navy.	Insular force.		Regular Navy.	Insular force.
Grade 1 (permanent).....	8 420	.....	Grade 5.....	19, 260	123
Grade 1 (acting).....	3, 112	.....	Grade 6.....	23, 509	145
Grade 2.....	12, 885	16	Grade 7.....	1, 890	.....
Grade 3.....	11, 533	25	Total.....	94, 716	402
Grade 4.....	14, 107	93			

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. You could get that without very much trouble, could you not?

Admiral WASHINGTON. Yes, sir; without any trouble at all. But, Governor, take the case of 16-year and 20-year men eligible for the fleet reserve. Under the law a man who serves 16 years must go in at the expiration of the sixteenth year, otherwise he has got to wait for four years before he can go into the fleet reserve.

Mr. KELLEY. That could easily be taken care of, I assume?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. And it was never intended to operate that way in the first place?

Admiral WASHINGTON. That is the comptroller's decision of the law.

Mr. BYRNES. Do you mean to say that if a man has served 17 years he can not go into the fleet reserve but has to wait until he has served 20 years?

Admiral WASHINGTON. That is correct.

There is another feature of this, Mr. Chairman, which I hope you will not overlook, and that is the fact that these men who have served 5, 8, 9, 11, 13, 14, and 15 years have all be promised something.

Mr. KELLEY. Who promised them that?

Admiral WASHINGTON. General notoriety or when we tell them that if a man reenlists he is eligible to the fleet reserve. There is no law. He reads and knows it. It is published on the bulletin board. It has been circulated for the purposes of recruiting. It is not something that has been done yesterday, to-day, or to-morrow;

it is something which the officers have taken a great deal of interest in telling the men. That is one thing which concerns me. The drastic step which you propose to take, Governor, would do away with what has been the accumulation of 50 years or so. There was a time when we did not have enlistment for continuous service, and we had a great many beach combers and men of that kind and of all nationalities comprising our Navy. Then we got the three years' enlistment; that is, we got Congress to make the enlistment continuous and to give the men a little bounty for reenlisting, at first three months and then four months for an enlistment for a four-year period. That has been what we have been drilling into these men for 35 or more years. I think the law for continuous service was first enacted in 1887 or 1888. When I first went to sea our crews were men that we picked up anywhere and of any nation and enlisted for the cruise, one to five years, five years being the limit. When the men left they had no claim on the Government whatever. Now, under the law, he is allowed to come back upon presenting his honorable discharge in four months for reenlistment and is given four months' bounty and gets an increase of pay and gets a further increase if he is an American citizen, and if he has gone through certain schools, etc., as practically most of these men now have done.

It has been the accumulation and result of the work of forty-odd years. You propose to wipe that away without any consideration.

Mr. KELLEY. How many men did we have in the Navy at that time?

Admiral WASHINGTON. 260,000 or 270,000.

Mr. KELLEY. That was during the war—before the war. How many men did you have in the Navy when these people came in?

Admiral WASHINGTON. When I first entered the Navy I think we had something like—

Mr. KELLEY (interposing). No; just before the war.

Admiral WASHINGTON. We had about 67,000 authorized—about 54,000 in the service.

Mr. KELLEY. What could you promise or anybody else promise that induced a man to come in when we had 54,000 to believe that he was going to be permitted to remain on the basis of 100,000 men or any other number above that?

Admiral WASHINGTON. The Act of August 29, 1916, which was prior to the war, gave him more inducements than any other one. That was passed just before the war. That is why these men came in. The fleet reserve was established by that act.

Mr. KELLEY. My recollection is that you came before the committee a while ago and said that they were all leaving the Navy!

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. That your ships were being tied up at the docks and at navy yards, that the ships were being destroyed in certain cases that they were all leaving.

Admiral WASHINGTON. Not all leaving.

Mr. KELLEY. Leaving to such an extent—

Admiral WASHINGTON (interposing). Great numbers were.

Mr. KELLEY. Leaving to such an extent that the Secretary of the Navy reported to Congress—that the men in these essential ratings were leaving to such an extent that practically he had only—you remember—I have forgotten the exact figure.

Admiral WASHINGTON. That is substantially correct.

Mr. KELLEY. That is, because all of these men in the higher ratings were going to leave and had left.

Admiral WASHINGTON. I do not like the using of the word "all."

Mr. KELLEY. To such an extent that you could not operate the ships?

Admiral WASHINGTON. If you will look back over the hearings——

Mr. KELLEY (interposing). Is not that right?

Admiral WASHINGTON. No, sir.

Mr. KELLEY. A year or two ago that these men in the higher ratings were leaving the ships, leaving the service to such an extent that you had to tie up the ships, you could operate, only on a very limited basis.

Admiral WASHINGTON. I do not know as to that, because I was not before the committee.

Mr. KELLEY. That these men operating the engine rooms and all at sort of thing were all going out and had gone and that the only way we could manage to get them back was to increase the pay temporarily, and you came here with that statement and we did it on your statement, that they were all leaving and going into civil life.

Admiral WASHINGTON. That is a little too broad. If you will look through it you will find that I said they were leaving, a large proportion of the machinists, electricians, and people of that kind, because they could get jobs outside, but at no time did I state that all the upper ratings were leaving. If you got that impression you are entirely wrong.

Mr. KELLEY. I remember the situation very well, because we had under advisement.

Mr. OLIVER. Just this qualification I would make to the statement: I think, perhaps, instead of saying they were all leaving they said that some had left and perhaps they may have said a great many had left?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. And they said further that there were a number who were threatening to leave?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. Unless they could be assured of some advance.

Mr. KELLEY. But the situation would not have been improved by anybody's threatening.

Mr. OLIVER. I recall that some representatives of the enlisted men were before the committee. They also made a statement that they had been using every effort to have these men remain in the service until after the committee could act.

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. And that they had the promise and assurance that they would remain in if legislation of this kind would probably be passed; that is my recollection.

Admiral WASHINGTON. That is about correct, as I recall it. That certainly about the way I intended to convey the information.

Mr. KELLEY. Here is a letter from the Secretary of the Navy to the Speaker of the House, in which he says—this is on the 20th December, 1919:

I am advised by the Chief of the Bureau of Navigation—

That was your predecessor?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY (reading):

That the loss has been growing so rapidly that to-day we only have sufficient skilled men in the artificer and engine room branches proportionately to the Navy of 45,000 men, though we have a total enlistment of 102,000 men in the Navy.

Admiral WASHINGTON. I think that was correct at the time.

Mr. KELLEY. You came along here just a little while later with these upper ratings—

Admiral WASHINGTON (interposing). That has been said so many times that I should be very glad to again repeat it. We had during the war a total of so many—I do not remember—ships in commission, the regular ships in the Navy; we had the Army transport service, the N. O. T. S. service—we must have had 2,000 vessels maybe nearer 3,000, perhaps even more, and the Navy was called upon to supply the officers and men for those vessels. We took then the Naval Reserve and enlisted men in the Regular Navy, as we know, to the extent of about 280,000, so that the total number of officers and men, together with the reserve, was a little short of 600,000. All of these ships and other transports engaged in service of war required officers and men, and they were supplied with officers and men, the whole fleet, before I crossed to the other side; the whole United States fleet in the Chesapeake Bay and elsewhere was turned into a training school for the making of petty officers, primarily, the making and training of enlisted men. We turned them out by the hundreds and hundreds. These men were appointed petty officers in 1917 and 1918 and sent to these 3,000 or so ships so that those ships were manned and the war was successfully conducted. The result was at the close of the war when we began to demobilize, these Army transports were back, the N. O. T. S. were turned over to the Shipping Board or otherwise, and the Navy having these men enlisted in the Navy had to receive them just as the merchant vessels were transferred to their original owners.

Mr. KELLEY. We understand that.

Admiral WASHINGTON. I want to finish this, because perhaps other members of the committee may not have understood it.

Mr. KELLEY. I think we all understand it.

Admiral WASHINGTON. Until we had a large excess away beyond the needs of the Navy proper when we reduced to 120,000 from a total near 600,000 men in 1919 and 1920. Thus, we had this enormous excess of chief petty officers, first class, and of the lower ratings made to man the auxiliary naval vessels during the war but in excess of the needs of the Navy after demobilization of vessels. Those enlisted for the duration of the war or for four years. Under the law they were allowed to extend their enlistment for a period of three, or four years, or they got \$60 bonus and then reenlisted for those periods. Many of them did, because we could not say to a honorably discharged person, "No, we do not want you;" we had to take him back. So we did. The result was that we had a large

cess, for instance, in bandmasters, in chief boatswain's mates, sailmaker's mates, and men in a great many other ratings. The other men that we wished to hold, to which you have referred, in the engineer ratings, such as electricians, machinists, etc., could and did get jobs with good pay outside and in considerable numbers they left us. That accounts for this letter which you have just read from the Secretary, but the people like the boatswain's mates, sailmakers' mates, quartermasters who were really seamen, and their life was on the sea, did not leave us for better jobs. They could not generally get them. A great many of them did go to the Shipping Board and places like that temporarily.

Mr. BYRNES. They remained in the service?

Admiral WASHINGTON. They remained in the service and they account for the excess almost solely. I have told that so often to the Naval Affairs Committee, a member of which committee the governor was at the time, that I think it is due to the rest of the committee to understand how that excess occurred. It was not the purpose of the Navy Department to create an excess of chief petty officers.

Mr. BYRNES. When the other ships went out it left you with these officers?

Admiral WASHINGTON. Yes, sir.

Mr. BYRNES. Why a big excess of bandmasters?

Admiral WASHINGTON. All large vessels and many of the moderate ones usually carry bands; all troop transports carried them, and when these vessels were turned back to their owners the bandsmen being enlisted men were thrown back into the Navy, and thus we accumulated an excess of bandmasters, just as in other ratings. These excess bandmasters have the same rights as any enlisted man. That is a moral obligation which appeals very strongly to me.

Mr. BYRNES. The moral obligation might be so strong that you would keep him after you had no duty for him to perform?

Admiral WASHINGTON. We have duties for all the bandmasters, we assign them as members of the bands. In one extreme case we had 11 bandmasters in one band at one time.

Mr. KELLEY. The Government finds itself in the same situation at a private individual finds himself in when he has no further use for the employment of an individual. We can not go on. We see the situation in the navy yards. It is not an easy one. There is never a time, in my judgment, in the history of the Navy when the difficulties of administering the Navy the difficulties of the Secretary of the Navy, approached what they are now. And I do not think you can take the position that simply because we have hired men in the past and now find ourselves where we have no use for them that we have to keep on paying them out of the Government treasury and tax the people to support them. I think you will have to take a little different attitude.

Admiral WASHINGTON. I agree with you.

Mr. KELLEY. If you fill up these higher ratings of the Navy, as you say you have, by men who have come from different ships during the war and who have been made petty officers on those ships during the war of the grade of yeoman—those are bookkeepers?

Admiral WASHINGTON. Yes, sir.

Mr. KELLEY. Doing clerical work a good deal, and bandmaster and some of those other semicivilian occupations, you have a large number of people in these higher ratings drawing this high pay who are not mechanics, who are not electricians, who are not really contributing to the operation of the ships, we are under no obligation to continue those men during times of peace simply because we got them in in time of war.

Admiral WASHINGTON. I agree with you very largely. I do not think there is much difference of opinion between us there.

Mr. KELLEY. Now, the time has come when we will have to comb them out. It is not a pleasant job.

Admiral WASHINGTON. We are combing them out rather rapidly.

Mr. KELLEY. You must not think, Admiral, that this is a cheerful job for Congress or that it is a cheerful job for the Secretary of the Navy. I do not know a man in the Government at this moment in my judgment, who has any more difficult problems and who has handled them in better shape than the Secretary of the Navy. We will try to help him to do some of these things. It would be very hard for him if we did not help him.

MAKING 16-YEAR SERVICE MEN ELIGIBLE FOR FLEET RESERVE.

Mr. BYRNES. Admiral your statement is based upon the idea that we failed to provide for the fleet reserve. Is that what you have complained about?

Admiral WASHINGTON. No, sir. I am hoping you will provide for the reserve. I do not know what Congress intends to do with the fleet reserve. I understand it is in another bill. If it is, then I think it is settled, provided the bill passes.

Mr. BYRNES. You would not have as much complaint if the fleet reserve were taken care of; then those men could be provided for the fleet reserve?

Admiral WASHINGTON. If you allow them to go into the fleet reserve. There are many of them, but I do not think that the total number should be reduced to 6,700.

Mr. OLIVER. A considerable number of men are now eligible?

Admiral WASHINGTON. Not so many.

Mr. OLIVER. Did I understand you to say that you had those figures?

Admiral WASHINGTON. No, sir; but there is not such a large number. The difficulty is with the 16-year men. As soon as we get them to the class of 16 years—

Mr. KELLEY (interposing). Suppose that were corrected so that those men would be eligible for the fleet reserve?

Admiral WASHINGTON. Yes, sir; that would relieve the pressure very much.

Mr. KELLEY. Provide that the people who were dropped out should be eligible for the fleet reserve after 16 years?

Admiral WASHINGTON. I think it should be made within the discretion of the Secretary.

Mr. KELLEY. We will help you out.

Mr. OLIVER. I think that the suggestion of Mr. Kelley is a very good one, but, at the same time, in order that we may know what the fruit of a suggestion of that kind would be if enacted into law, you would

rst have to submit to us a list of those who are between the ages of 15 and 20 years and whom you may thus provide for?

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. It might be, in the absence of definite information, that we would not care for any great number of this excess, you understand. I think it would be well to let there appear clearly the number whom you could thus provide for if we gave you the enabling legislation.

Admiral WASHINGTON. Yes, sir.

Mr. OLIVER. Then, I would like to know, and you could, perhaps, get the accurate information by submitting the question to the Judge Advocate General, whether under the law as it now stands those who hold commissions as petty officers in these different grades would have an obligation against the Government in the event we undertook to change their status?

Admiral WASHINGTON. The Government would have no legal obligation.

Mr. OLIVER. Did you not intimate a few moments ago that there might be?

Admiral WASHINGTON. In passing them out, if they did not go willingly.

Mr. OLIVER. In the event they do not go willingly, have they contracts with the Government which, if no provision was made for their pay, would give them a claim against the Government?

Admiral WASHINGTON. No, sir. A man whose enlistment expires—

Mr. OLIVER (interposing). But as to a man whose enlistment has expired?

Admiral WASHINGTON. I do not think anybody can bring a suit against the Government under their enlistment contract.

Secretary DENBY. They have no legal claim.

Mr. BYRNES. Unless sooner discharged, like in the Army?

Admiral WASHINGTON. I do not think so.

Secretary DENBY. There is no legal obligation.

Mr. OLIVER. I would like for you to just simply consult the Judge Advocate General, who is very familiar with the law, and have a short statement placed in the record.

Admiral WASHINGTON. Yes, sir.

NUMBER AND PAY OF MEN IN FLEET RESERVE.

Mr. OLIVER. How many have you in the fleet reserve?

Admiral WASHINGTON. A total of about 5,400.

Mr. OLIVER. You estimate that the average man—we will further have to provide for those—that we might authorize to be transferred to the fleet reserve would have something around \$800 a year?

Admiral WASHINGTON. Something in that neighborhood; but less they had less service.

Mr. OLIVER. I understand.

Admiral WASHINGTON. There is a proviso in the enlistment contract which says, "unless sooner discharged by proper authority." and therefore no legal claim lies against the Government if the department should cancel a man's enlistment prior to its expiration.

PAY OF NURSE CORPS.

Mr. KELLEY. The next item is "Pay of the Nurse Corps."

Admiral POTTER. Four hundred and thirty-three at a total pay \$366,720. We have the details of those if they are of interest.

Mr. KELLEY. Their pay is statutory?

Admiral POTTER. Yes, sir.

Mr. REED. The same as that for the Army.

RENT OF QUARTERS FOR NURSE CORPS.

Mr. KELLEY. The next item is "Rent of quarters for members the Nurse Corps."

Admiral POTTER. \$25,000.

Mr. REED. That is in those cases where there are not quarters the naval hospitals for which the Government has to rent quarters outside in order to have them conveniently located.

RETAINER PAY AND ACTIVE SERVICE PAY OF NAVAL RESERVE.

Mr. KELLEY. The next item is "Retainer pay and active-service pay of members of the naval reserve force."

Admiral POTTER. That is put down at \$4,000,000.

Mr. KELLEY. This is the item that the Admiral was talking about. That is based on what?

Mr. REED. That amount was fixed at the time the estimates were submitted, based on taking care of the then existing fleet of naval reserves plus 500 reserve officers on active duty. It was estimated that about \$4,000,000 would be required, although no careful calculation was made at that time.

NUMBER AND PAY OF AUXILIARY OFFICERS.

Mr. KELLEY. Is this the fund from which the auxiliary officers are paid?

Mr. REED. Yes, sir.

Mr. KELLEY. How many of those are there?

Mr. REED. I have not the data.

Admiral WASHINGTON. About 270 now on active duty.

Mr. KELLEY. You told me other day about 410.

Admiral WASHINGTON. In addition there are about 90 aviators making it 360 total. The number is being reduced continually.

Mr. REED. The pay of the 270 reserve officers would be \$746,250. For the other reserve officers no calculation was made, as I had understood that none of those would be retained on duty. In the original calculation we provided for 230, whose pay would have been \$494,500.

Mr. KELLEY. Is not that in the \$4,000,000?

Mr. REED. At that time it was intended to be covered.

Mr. KELLEY. Is this the pay and allowances?

Mr. REED. Just the pay.

Mr. KELLEY. This includes the 270?

Mr. REED. Yes, sir.

Mr. KELLEY. And how many others?

Mr. REED. Two hundred and thirty.

Mr. KELLEY. And how much would be the amount?

Mr. REED. \$494,560, making a total of \$1,240,767.

Mr. KELLEY. That will come out of the \$4,000,000?

Mr. REED. Yes, sir; it was so intended.

Mr. KELLEY. What would that leave in the \$4,000,000?

Mr. REED. \$2,759,233. No definite calculation was made at the time as to just what number we would care for.

COSTS OF ENLARGING FLEET RESERVE TO VARIOUS SIZES.

Mr. KELLEY. What would the 5,200 fleet reserve cost?

Mr. REED. The present estimate in number of fleet reserve, which will be based on the present number and the normal increase—

Mr. OLIVER (interposing). What is the normal increase?

Mr. REED. In class 1-C, which is the 16-year grade, they are increasing at the rate of about 19 a month—there were 938 on the 1st of March—so we are estimating for 1,118 as the average number during the fiscal year 1923. In class 1-D men, the 20-year men, 1,447 on the 20th of March, and they are increasing in numbers at the rate of 54 per month, so we provide an average of 2,258 during a fiscal year 1923.

Of class 1-B men we have approximately 3,500 at the present time, of whom about 1,500 will be discharged prior to July 1, 1922, and about 1,000 during the fiscal year 1923. As they are not being re-enrolled, the average number for next year is estimated at 1,500.

Admiral WASHINGTON. If the present number of men in the Navy is reduced to 65,000 from 94,000, that number will materially increase.

Mr. KELLEY. Out of the class we have been talking about heretofore?

Admiral WASHINGTON. Yes, sir; very materially.

Mr. REED. In addition to the enlisted men I give you, there will be 330 officers in class 1 of the Naval Reserves next year. The number on March 1 was 419; 83 of them will be discharged prior to July 1, 1922, and 11 during the fiscal year 1923, making the average for the year 330. The total amount that will be required for a class 1 naval reserves is \$3,596,000.

Mr. KELLEY. That is, with all the eliminations you have provided for?

Mr. REED. Yes, sir. That is for the retainer pay, based on the present numbers, figuring the normal number of decreases and increases in the various classes.

Mr. KELLEY. You have taken off the \$746,207 for auxiliaries?

Mr. REED. Yes, sir.

Mr. KELLEY. And the \$494,560 for aviation?

Mr. REED. Yes, sir.

Mr. KELLEY. That leaves \$3,596,000?

Mr. REED. Yes, sir; for the fleet reserve just as we figure it will be organized next year.

Mr. KELLEY. Can you put in the record a statement showing to what extent this fund will have to be increased for each 1,000 men who might be transferred to higher ratings?

Mr. REED. I went over that with Captain Enoch early in the week, and we made some calculations. We decided that the average man

who would be eligible for transfer, or the average retainer pay, will figure up \$61.49 per month. So we thought that \$720 per year \$720,000 per thousand would cover it. If you should assume 4,500 men would be transferred, the top ratings would require \$3,240,000 in addition to the \$3,596,000, or a total of \$6,836,000 retainer pay. If provision is made for the retention of reserve duty in the auxiliary class, then an additional amount should be added for their pay.

Mr. KELLEY. How much did you say the amount would be per thousand?

Mr. REED. \$720,000 per thousand men.

Mr. KELLEY. We can figure with Admiral Washington as to the probable number of officers, and adjust the figures accordingly. I believe that will open the door.

Secretary DENBY. That being but an estimate.

Mr. KELLEY. It is an experimental thing. You are going through a reorganization that is hard, and it is difficult for you to make estimates on a thing like that. Of course, nobody will hold you strictly to account for them. Deficiencies, if necessary, will not be considered a violation of any law or a violation of any agreement with the committee on this item.

REIMBURSEMENT FOR LOSS OF PROPERTY.

Admiral POTTER. The next item is for reimbursement for loss of property, which we put at \$10,000. That is on account of sinkings and other marine disasters.

SIX MONTHS' DEATH GRATUITY.

The next item is the six months' death gratuity, \$150,000. That is based upon past experience, and has been somewhat arbitrarily diminished.

Mr. KELLEY. That makes a total of how much?

Admiral POTTER. \$92,760,280.

Mr. KELLEY. That is not quite right, because you make a deduction from \$4,000,000 to \$3,596,000 in the item for retainer pay—Reserve Force. All the other items we will have to figure between us. Does that finish pay of the Navy?

Admiral POTTER. Yes, sir.

PROVISIONS OF THE NAVY.

Mr. KELLEY. The next is "Provisions of the Navy."

Admiral POTTER. This year we are asking under "Provisions of the Navy" for 1923 a total of \$16,599,826. That, of course, is based upon 65,000 men and 2,000 marines serving afloat. We allow \$0.5656 per man of the Regular Navy, plus 2,000 marines serving at any given moment—that is to say, for 67,000 men, which we estimated for at 50 cents per diem per man. The total cost on that calculation is \$12,227,500. The average cost of the ration present is running \$0.5656. That is the actual figure, and no estimate is involved. We compiled, for the second quarter of 1922, 6,779,047 rations, and found that the average cost, not including surveys, was \$0.5656.

Mr. KELLEY. How did you arrive at that average?

Admiral POTTER. We took our returns for the quarter, which showed the number of rations actually consumed on each ship and for every individual enlisted man on it. We added all of that together and divided by the total.

Mr. KELLEY. What is included in the cost of the ration?

Admiral POTTER. The cost of the ration includes the food; and since nearly all of it is purchased, according to our plan as stated yesterday, east of the Mississippi River, it includes freight.

Mr. KELLEY. It is the cost of the food laid down at your storehouses on the Atlantic and on the Pacific?

Admiral POTTER. Yes, sir; but 90 per cent of our food purchases are made on the east coast.

Mr. KELLEY. There are some handling charges. Are they included?

Admiral POTTER. The ordinary handling charges from the station on board ship? No, sir. They are not included.

Mr. KELLEY. So that it is really just the cost of the food?

COMPARISON OF ARMY AND NAVY RATION COSTS.

Admiral POTTER. Yes, sir; and, of course, that carries with it the containers.

I know that you will be interested in the matter of comparison between the Navy ration and the Army ration, and if you will allow me, I will discuss that a little. As you know, the Navy ration is greater in quantity, and I believe it is better than the Army ration. Our quantity is directed by law. The quantity to be served to the enlisted men of the Navy is directed by law, and we furnish the quantity ordered by law, and that is 36 per cent more food than the Army gets. That, of course, right away means a considerable addition to the cost of the food.

Mr. KELLEY. Even if it were in exactly the same form?

Admiral POTTER. Yes, sir. However, our ration has been running more than 36 per cent greater in money value than the Army ration. It has been running for the second quarter of 1922, or for the quarter ended December 31, 1921, 64 per cent in value greater than the Army ration for the same period. As I have said, our ration is 36 per cent greater in quantity. The Navy's food also costs more, because it is more expensive packages, and because several of our items are considerably more expensive, we having a greater proportion of canned meats, etc. In addition, the Army ration appears to cost less than it does. The money to procure the ration furnished the Army receives several increments. The Army posts have gardens, and they very substantially increase, without expense to the Government, their ration. They also increase it through their operation of post exchanges, whence they derive money to increase the ration. They also sell the excess vegetables to the officers, and that money is turned in to increase the amount allowed by Congress for the ration. Therefore, the Army ration, or the initial Army ration, so far as the charges against the Government appropriation are concerned, costs less than the Navy's, and the value of the food actually furnished seems to me to be considerably more. The Army ration, furthermore, does not in-

clude freight. This latter statement I have just procured from the Army within the last week, although informally.

Mr. KELLEY. That is a very important point. Are you sure that the Army ration does not include freight?

Admiral POTTER. According to the informal statement that they have just given us, it does not. I have some other matters here. This touches upon freight, the matter we were talking about yesterday. The Army in the purchase of subsistence makes its purchases largely for delivery f. o. b. factory, and it is transported under Government bills of lading. Hence, the cost of that transportation is chargeable to an appropriation other than that to which the cost of the provisions is charged, and is not computed in determining the final cost of the ration.

Mr. KELLEY. That is very important information, if you are certain about it.

Admiral POTTER. That is the information we get from them.

Mr. KELLEY. It is information that will convince, and that is the best kind of information.

Admiral POTTER. There is another point I would like to mention, and that is that the cost of our ration increases beyond the cost of the Army ration. One of the reasons for that increase is because of the issue to enlisted men of the engineering and dynamo forces who have night watches. That is in accordance with law. The law allows us to do that, and we furnish them an issue between 8 p. m. and 8 a. m.

Mr. KELLEY. A sort of midnight lunch?

Admiral POTTER. Yes, sir; we usually give them sandwiches, coffee, and tinned fruit.

Mr. KELLEY. You can not do too much to suit me.

Admiral POTTER. That adds from one-half a cent to 1 cent to the cost of the ration. There is one other thing that I think you were interested in. At one time last year, I think, you displayed an interest in the relative increase, and you pointed out that in 1919 and 1920 the increase in the value of the ration over the Army ration seemed to be in excess of the quantity increase. I am not sure of your language, but that was the effect of it. I have checked the rates back since 1910 up to the present time, and have the increases shown for each year. In 1910 our money value increase above the Army's was 63 per cent; in 1911, it was 58 per cent; in 1912, it was 54 per cent; in 1913, it was 61 per cent; in 1914, it was 52 per cent; in 1915, it was 46 per cent; in 1916, it was 33 per cent; and in 1917, it was 32 per cent.

Mr. KELLEY. That was when the Army was abroad, and their cost was high.

Admiral POTTER. That was in 1918-19, when our ration was only 12 per cent higher. Then it climbed to 28 per cent, and in 1921, it was 78 per cent higher.

Mr. REED. In 1918 it cost practically the same.

Admiral POTTER. In December, 1921, it was running 64 per cent.

Mr. KELLEY. How is their ration controlled—by regulation of the Secretary of War?

Admiral POTTER. Yes, sir; by the President acting through the Secretary of War. They readjust the ration on his order, but ours is statutory.

Mr. KELLEY. Of course the boys on shore can slip away and get their lunch occasionally, whereas the boys in the Navy can not do that.

Admiral POTTER. That is true, and that is a very important reason. Many soldiers of the Army, they tell us, often actually eat two official meals per day, while of course in the Navy we feel that three solid meals must be provided, because our men are on the ships to make all their meals.

Mr. KELLEY. Admiral Wilson was discussing that in connection with the Military Academy at West Point, and it appears that they have one self-served meal that the boys get in a cafeteria.

ESTIMATE FOR SUBSISTENCE FOR 1923.

Admiral POTTER. Here is another thing: The subsistence for 1923 for crews serving on Army transports is estimated at 55 cents.

Mr. KELLEY. That is the cost?

Admiral POTTER. That is their estimated cost for 1923 for their people serving on Army transports.

PROVISIONS ON HAND.

Mr. KELLEY. How much provisions have you on hand?

Admiral POTTER. We have now about \$6,200,000 worth.

Mr. KELLEY. Could we not eat into that very comfortably?

Admiral POTTER. We did that last year. We had about \$15,000,000 worth, and we began eating into that. We thought that in view of the diminished number of enlisted personnel we might begin to eat into what we had normally regarded as our reserve stocks.

Mr. REED. There are certain provisions, such as dried and tinned provisions, that we purchase annually. These are purchased annually at certain seasons of the year, because that is the time when we can get the best price. Therefore of some items we may have a year's supply on hand, while of other items of which the value does not fluctuate particularly we carry a shorter supply, or simply enough to meet the issues.

Admiral POTTER. This \$6,000,000 worth would be approximately six-month supply.

Mr. KELLEY. Generally you have about three months' supply on hand, do you not?

Mr. REED. No, sir; of some items we must carry at least a year's supply in stock.

Mr. KELLEY. In the case of canned corn, tomatoes, and that kind of stuff, you buy your supply at the time the crop is harvested or put up?

Admiral POTTER. Yes, sir; butter and tinned fruits and vegetables, particularly.

Mr. KELLEY. You have really done pretty well, and you did not think you could do this well, did you?

Admiral POTTER. No, sir; but when you were talking about 60 cents for the ration last year, I did not suppose that we would use the supply down below 15 months. I took it for granted that we would continue to hold our war reserve.

Mr. KELLEY. You figured on 68 cents?

Admiral POTTER. That was the initial figure.

Mr. KELLEY. Did you consent to 60 cents?

Admiral POTTER. No, sir.

Mr. KELLEY. What was it that you agreed to?

Mr. REED. 63 cents.

Mr. KELLEY. In that case the layman made a better guess you did.

Admiral COONTZ. That was done by letting them cut down to 6 months.

Admiral POTTER. We have eaten up eight or nine million dollars worth of supplies that ordinarily would have remained in stock.

Mr. KELLEY. I do not think farm products will go much higher than they are. You probably will not buy much cheaper next year than you have this year.

Admiral POTTER. Within the last few months we checked up on the food situation in 15 cities, and it had gone up on an average from 1 to 2 per cent. Whether that increase will continue or not we do not know.

AVERAGE RATION COSTS.

Mr. KELLEY. You will get along with 50 cents this year?

Admiral POTTER. I hope so, sir; if we have good luck.

Mr. KELLEY. What is the Army ration?

Admiral POTTER. They requested 34 cents, I think. They were given 34.39 cents.

Mr. KELLEY. It is costing 32 cents, and the bill carries 30 cents. For the Navy we will have to add 20 cents to that, which would mean an increase of 66 per cent.

Admiral POTTER. Yes, sir; and our monetary increase is 64 per cent now. Last year it was 78 per cent, and in December, 1922, it was 64 per cent. I understand that the War Department states approximately \$1,150,000 will be needed in addition to the amount provided for the Army by the House bill.

NUMBER AND COST OF DESTROYER RATIONS.

Mr. KELLEY. I do not suppose there will be quite as much for destroyer rations during the coming year, and would not that mean more than 4 cents difference in the ration as compared with last year? What is your destroyer average?

Admiral POTTER. For the same quarter I have named, the destroyer ration amounted to 2,382,790 rations, and the average was 69.77 cents.

Mr. KELLEY. About 70 cents in round numbers?

Admiral POTTER. Yes, sir.

Mr. KELLEY. If it were not for that your ration would come at least down under 50 cents. As I recall, you figured on something like 6,000,000 rations. How many men will 6,000,000 rations feed?

Mr. REED. Seventy-five thousand men.

Mr. KELLEY. That would last how long a period?

Mr. REED. Three months.

Mr. KELLEY. They would last three months for that number of men?

Mr. REED. That is according to the last complete returns we have.

Mr. KELLEY. The returns covered October, November, and December?

Mr. REED. Yes, sir.

Admiral POTTER. That allows for giving the men the full quantity allowed by law during the three months. We do not get monthly turns showing the ration, but only quarterly returns.

Mr. KELLEY. If there is a reduction, it does not show until you get our old stock used up. Your old stock is in there at a certain price.

Admiral POTTER. It is adjusted to the actual price all the time.

Mr. KELLEY. It is adjusted to the current price all the time?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You can do that because it is not tied up in the other end?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You use this without being paid for it?

Admiral POTTER. Yes, sir; direct from the provisions appropriation without reimbursement to any other fund. I have here a table which shows each component of the ration, compared with the Army ration and our ration. I do not know whether that is of interest to you.

Mr. KELLEY. How many destroyers, both active and in reserve, and men on them?

Admiral COONTZ. 278.

Mr. KELLEY. During those three months?

Admiral COONTZ. I think that is about right.

Mr. KELLEY. There were not many of them laid up?

Admiral COONTZ. No, sir; not of those; we had some, but I did not count them.

Mr. KELLEY. Suppose you had 103 in full commission and the other 175 laid up as a great reserve defense for the country, what difference would that make in the ration?

Mr. REED. The distribution of the ration cost, taking the cost, vessel by vessel, and types of vessels, and applying that to the vessels proposed to be kept in commission, brings us just about the same figure.

Mr. KELLEY. That is where you get your 4 cents, is it; making 50 cents instead of 54 cents?

Mr. REED. No; it still shows 56 cents. By taking the ships that are expected to be in commission and the ration cost for each type of vessel, it gives us an average cost of \$0.56379 in the Atlantic and .57881 in the Pacific, which is just about the cost of the present ration. In other words, the distribution of men between ships carrying supply officers and those not carrying supply officers would be in about the same proportion as it is now.

Mr. KELLEY. I would not think it would be.

Admiral POTTER. If you will look at that sheet you will see how it worked that out.

Mr. KELLEY. Of course, they were in reserve, but they had 50 men on them all the time.

Admiral COONTZ. But they had opportunities for saving because they were very often tied up six together, and they would probably pass on one ship, the same as we use steam to heat six, and there

would be a cheapening in that regard as compared to a ship cruising by itself.

Admiral POTTER. I do not know whether it would be interesting to show the relative nutritive values between our Navy and other navies.

Mr. KELLEY. I think we are perfectly satisfied to have you feed the boys the very best.

Admiral POTTER. Our ration is 8.7, the British 7.2, the Japanese 6.3, and the French 3.7.

LOSSES BY SURVEY ASHORE AND AFLOAT.

Mr. KELLEY. You have an item on this list of losses by survey ashore and afloat. How do you estimate those losses?

Admiral POTTER. That is based upon past experiences, which we went over for a long while back. Each return we get each quarter shows the losses by survey just as it shows the cost of the ration, and that item of \$519,670 is 4½ per cent of the estimated cost of the ration—that is, of the \$12,227,500. It just happens to be that percentage.

Mr. KELLEY. This includes the ration for the midshipmen, does it not?

Mr. REED. Yes, sir.

Admiral POTTER. That is, the total does?

Mr. KELLEY. The cost of the ration is averaged in.

Mr. REED. We take the subsistence of the entire number of men at the rate we use; then if subsistence is furnished to additional numbers as to the warrant officers, midshipmen, and nurses, that goes in as an additional item.

Mr. KELLEY. That is not included in the ration of 50 cents?

Mr. REED. No, sir.

Mr. KELLEY. That is a separate matter?

Mr. REED. Yes, sir.

Mr. KELLEY. But it is included in this total of \$16,000,000?

Mr. REED. Yes, sir.

ADVANCES TO ACADEMY FOR PURCHASE OF FARM.

Mr. KELLEY. Admiral Wilson told us the other day that the \$1.06 which you have here may be reduced to 80 cents, in round numbers, and I think he said 81 cents, if we did not require them this year to put up anything for the reimbursement of the general account of advances.

Admiral POTTER. I think that is correct, if we were not required to have the price which the dairy charges to midshipmen for food furnished. In order to build up a sinking fund for the purpose of making up the \$250,000 advance under general account of advances we now credit a portion of the \$1.08 to a sinking fund.

Mr. KELLEY. What would be your recommendation with regard to the \$250,000 that was loaned to the academy for the purpose of buying a farm?

Admiral POTTER. In order to enable you to reduce from \$1.08 to 81 cents, I think the best way would be to have Congress forgive us that \$250,000.

Mr. KELLEY. There is really not much sense in appropriating \$1.08 in order to reimburse that fund, because it is just sending it round through the academy and back into the Treasury.

Admiral POTTER. That is precisely it.

Mr. KELLEY. Suppose you refigure that at 80 cents, and that will come pretty close to the West Point figure. How much would that take off?

Mr. REED. \$245,280, making the amount required for the ration of midshipmen \$700,800, at 80 cents per day. We have not been accumulating 28 cents per man per day during the past; the subsistence has been costing more than that, and that is evidently due to other reductions in cost.

Admiral POTTER. It was not until quite recently that a decided effort was made to accumulate a sinking fund.

COMMENDATION OF SECRETARY OF NAVY FOR COMPENSATION TO MIDSHIPMEN AFTER GRADUATION FROM ACADEMY.

Mr. KELLEY. Mr. Secretary, what recommendation, if any, would you make as to any compensation or other payment to the midshipmen who are to be commissioned and discharged from the Academy after graduation?

Secretary DENBY. My recommendation would be that not less than six months' pay as ensign in the United States Navy shall be paid each man qualified for commission under the law after duly passing the examinations and ready to accept a commission who is not commissioned in the United States Navy, but who receives his diploma upon graduation and passes out of the service.

Mr. KELLEY. Without regard to whether they enter any other branch of the Government service?

Secretary DENBY. Yes, sir.

RATIONS FOR COURT-MARTIAL PRISONERS.

Admiral POTTER. The next item is 910 court-martial prisoners at 50 cents per diem, which would amount to \$132,860. That is based upon past experience. We do not have to furnish court-martial prisoners undergoing punishment full rations, and we estimate that we can feed them for 40 cents per diem and at the same time give them nourishing food. That amount is \$132,860.

COMMUTATION OF SUBSISTENCE FOR NURSES.

The next item is commutation of subsistence for nurses not subsidized by the Government, for which the estimate is \$37,412. The nurses' commutation is based upon the Army law.

The next item is commutation of subsistence for nurses on leave without pay, for which we estimate \$5,000.

The next is for 392 nurses at hospitals, at 60 cents per diem, \$85,848. That, again, is allied with the Army by statute.

The next is for the difference that must be allowed between 75 cents and 50 cents per diem for 1,000,000 sick days in hospitals, which amounts to \$250,000.

Mr. KELLEY. The hospital allowance is 75 cents?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Is that permanent law?

Admiral POTTER. No, sir; it is carried in the appropriation.
Mr. REED. It is costing in the neighborhood of \$1 on the average. It varies from 90 cents to something over \$1 per day.

SUBSISTENCE OF MEN ON DETACHED DUTY.

Admiral POTTER. The next item is for subsistence of men on detached duty. The Bureau of Navigation estimates the number of men as 3,229 throughout the year, and the total estimate is \$1,720, less subsistence in kind included in item 1, amounting to \$292, leaving the additional amount that must be allowed for subsistence of men on detached duty at \$1,278.428.

SUBSISTENCE OF SHORE PATROLS.

The next item is for subsistence of shore patrols, covering 750 for one-half time, at \$5 per day, \$684.375, less subsistence included in item 1, amounting to \$68.438, leaving the total estimate \$615.937.

For losses by survey, both ashore and afloat, the estimate is 4½ per cent of item 1, amounts to \$519.670. I think that is a conservative figure.

Mr. KELLEY. That covers the loss of food that spoils?

Admiral POTTER. Yes, sir; inevitably some fresh vegetables go wrong. For instance, potatoes loaded in New York for (Panama) must be picked over very carefully. That estimate is \$51. The final item is labor at navy yards handling provisions, \$30.

Mr. KELLEY. I wonder if any such item as that is included in Army ration; that is, that charge for handling provisions?

Admiral POTTER. I understand that it is not included, and that is not computed as a part of the cost of their ration. Our total for item, making the corrections, is \$16,328.818; that is, after making the adjustments for the midshipmen, etc.

Mr. KELLEY. You will put that in the record in the form of a question will you not?

Admiral POTTER. I will do so.

Provisions, Navy, 1923 (revised for 65,000 men).

1. Sixty-five thousand men Regular Navy, 2,000 marines serving afloat, a total of 67,000 men, at 50 cents per diem (\$182.50 per annum)	\$12,227.5
2. Nine hundred and sixty-one warrant officers entitled to rations at 50 cents per diem (\$182.50 per annum)	173.1
3. Two thousand four hundred midshipmen entitled to rations at \$1.08 per diem (\$292 per annum)	700.8
4. Nine hundred and ten court-martial prisoners at 40 cents per diem (\$146 per annum)	132.9
5. Commutation of subsistence for nurses not subsisted by Government, 14,965 days at \$2.50 per diem	37.4
5a. Commutation of subsistence for nurses on leave with pay	5.0
6. Three hundred and ninety-two nurses at hospitals at 60 cents per diem (\$219 per annum)	85.1
7. Difference between 75 cents and 50 cents per diem for 1,000,000 sick days in hospital	250.0
8. Subsistence of 3,229 men on detached duty, \$5.117.04 per day, total per year	\$1,867,720
Less subsistence in kind included in item 1	589,292
	<hr/> 1,278.

Subsistence of shore patrol, 750 men for half time, at \$5 per day-----	\$684,375	
Less subsistence in kind, included in item 1--	68,438	
		\$615,937.00
Losses by survey, ashore and afloat-----		519,670.00
Labor at navy yards, handling provisions-----		300,000.00
Total -----		16,328,838.00

MAINTENANCE.

Mr. KELLEY. The next item is maintenance.

Mr. REED. The estimate is \$8,100,000.

Mr. KELLEY. That is what you are still asking for?

Mr. REED. We are still asking for that, for this reason, that while shows an apparent reduction of 10 per cent from the appropriation for this year, which was \$9,000,000, it is an actual reduction of 33½ per cent, for the reason that, due to the 5-day week, expenditures for the navy yards ran less this year than we had anticipated for those items chargeable to this appropriation. When we found that the shortage in the appropriation for freight had become so acute we transferred to maintenance all labor charges that we had been paying from the appropriation for freight. That involves a reduction of \$2,100,000 this year. We expect to continue charging at to maintenance, and to use the freight appropriation only for transportation charges.

Mr. KELLEY. If that were paid out of the freight item, this would be \$2,000,000 less?

Mr. REED. Yes, sir; but we have not, in asking for freight, made provision for sufficient funds. The tentative estimate under freight, which showed some labor charges, is necessarily subject to change because of changed conditions.

CIVILIAN EMPLOYEES.

Mr. KELLEY. Under the head of labor you have clerks, stenographers, typists, inspectors, and messengers estimated at \$3,500,000; dock men, \$1,775,734; miscellaneous laborers, \$1,358,788; making a total for labor of \$6,614,522. Now, what about your clerical force? What are you paying this year for clerks, stenographers, typists, inspectors, and messengers?

Mr. REED. The total positions are now running just over \$3,500,000.

Mr. KELLEY. These are the clerks at the various yards and stations located outside of Washington, except the navy yard at Washington?

Mr. REED. Except the navy yard at Washington, and there are several field activities which are housed in the Navy Department Building, but which are a part of the Naval Establishment. It includes the supply, disbursing, and accounting departments of the navy yards, and the cost-inspection service, property accounting, Navy disbursing, and Navy allotment offices.

INSPECTION COSTS.

Mr. KELLEY. With your inspection discontinued on the new construction, you must be able to make quite a cut there.

Mr. REED. There will be some reduction in the cost-inspection work on vessels under construction, but there will still be a considerable

able amount of work in connection with the accounts and contracts to be canceled. There will have to be other cost inspections of contracts that will be canceled, where we are not working on a cost-plus basis, but must inspect the contractor's books before making settlements. Therefore, the cost of the field-inspection force will be at least as large next year as at this time.

Admiral POTTER. I think the scrapping inspection will continue about two years. That was my experience on the compensation board and I think we will be wrestling with settlements for certainly a year and a half.

Mr. KELLEY. The only reason you think you can not make a cut in the inspection force is the fear that it will require about as much inspection in the cancellation of contracts as you have now in the building?

Mr. REED. Yes, sir.

Admiral POTTER. I was told the other day by the chairman of the compensation board, who has given a lot of consideration to these things, that that work will be greatly increased for him.

Mr. KELLEY. We went into this item quite extensively last year. Did we cut you any?

Mr. REED. Very materially.

Mr. KELLEY. You are getting along with it very well, are you?

Mr. REED. No, sir; we have had trouble. The only thing that put us through was the marked reduction in the navy yard work. The cessation of productive work at the navy yards aided us on this item materially.

Mr. KELLEY. If the conference had not come along, you would have had a deficiency?

Mr. REED. Yes, sir. I might say this in connection with it, that in February, last year, the Appropriations Committee, or the deficiency subcommittee, was asked to give us authority to employ more people for the accounting work and the work of the navy yards, because the work had been running behind under the limitation prescribed. I refused to give it, and it was largely because of that failure to get additional help that the work ran behind and the deficiency of \$1,000,000 in construction and repair and engineering developed. The work was behind, and we did not know what was being spent. With the further decrease in the appropriations, it will be found necessary to furnish information promptly and to furnish the information in detail to all the naval activities, in order that they can spend the money to the best advantage and not overspend their allotments.

Admiral POTTER. It is the money spent from this appropriation that enables us to muster a great deal of the information that we have been presenting to you here. While we assemble it here, it is based upon reports from the field. It is a very direct contribution to the information that we are able to lay before you. One thing that makes necessary expenditures under this appropriation is the disposal of surplus stores. At each navy yard they are constantly inventorying, and nearly all of those charges are allocable to this appropriation. There is another point, Mr. Chairman: We are revising our accounting system. We have got a completely new plan which is now being inaugurated, and that means additional work in the field and in the accounting offices. It increases the work

y by day, because we will furnish much additional information in regard to the Naval Establishment not hitherto furnished.

EMPLOYEES AT BROOKLYN YARD.

Mr. KELLEY. How many employees are you asking for next year at Brooklyn?

Mr. REED. One hundred and eighty-five in the clerical group and 1 stockmen, store men, checkers, and laborers.

Mr. KELLEY. That is a total of how many?

Mr. REED. Three hundred and fifty-six.

Mr. KELLEY. You have more there now than when you were here before?

Mr. REED. That was in the clerical group; it is now 185 in the clerical group as against 314 last year.

Mr. KELLEY. Those two last year totaled 634, and what is the total now?

Mr. REED. Three hundred and fifty-six.

Mr. KELLEY. You do not think you can make any further reductions in either of those stations?

Mr. REED. Not to any appreciable extent. Where we can dispense with the services of employees we are doing so, but the reports of the work as they come in indicate that they are having difficulty in keeping up. In the naval supply depot we had to authorize them to work in the supply department six days a week for three months in order to get up to date, as they had been running behind, and they are not entirely up as yet.

COST OF INSPECTION FOR 1922.

Mr. KELLEY. How does your cost inspection run this year?

Mr. REED. It is running about \$300,000 at the present time.

Mr. KELLEY. \$300,000 a year?

Mr. REED. Yes, sir.

Admiral POTTER. I think in 1921 it was nearly \$600,000.

Mr. KELLEY. Last year Mr. Reed said:

The cost inspection service is an entirely new proposition that we did not have at that time, and that 90 per cent will amount to about \$1,000,000 at the present time.

Is that \$1,000,000 a year?

Mr. REED. Yes; that is what it was costing at the time of the starting.

Mr. KELLEY. And now it has dropped down to \$300,000?

Mr. REED. Yes, sir.

Admiral POTTER. It was about \$600,000 last year.

Mr. KELLEY. You think it will take about \$300,000 next year?

Admiral POTTER. Yes, sir; and I think it will continue at that rate for six months after this year, 18 months at least.

NUMBER AND PAY OF CIVILIAN EMPLOYEES AND WHERE STATIONED.

Mr. KELLEY. How many people would this carry—clerks, stenographers, typists, inspectors, and messengers?

Mr. REED. Two thousand six hundred and ninety-seven.

Mr. KELLEY. Have you a table showing where they are distributed?

Mr. REED. Yes, sir.

Mr. KELLEY. And the average would be 2,600 divided into this sum?

Mr. REED. Yes, sir; that would be the average pay. I also have a summary like this showing the distribution of the clerical group and by our activities generally.

Field employees paid from the appropriation "Maintenance, supplies, and accounts," 1922.

	Clerical.			Semiclerical.			Supply.		
	Num- ber.	Total daily pay.	Total annual pay.	Num- ber.	Total daily pay.	Total annual pay.	Num- ber.	Total daily pay.	Total annual pay.
Supply.....	969	\$5,548.12	\$1,442,511.20	351	\$1,258.20	\$327,132.00	814	\$3,495.30	\$808,044.00
Accounting.....	448	2,181.74	567,252.40	328	1,492.48	388,044.80			
Disbursing.....	143	716.40	186,284.00	25	105.60	27,456.00			
Miscellaneous.....	35	41.52	40,508.00	8	41.52	10,795.20	7	29.36	7,620.00
Property accounting.....	86		128,100.00				86		128,100.00
Disbursing.....	103		154,880.00						
Navy allotment.....	201		252,450.00						
Total.....	1,985		2,771,975.60	712		753,428.00	821		916,480.00

Mr. KELLEY. You have 1,985?

Mr. REED. And the other group. As to the people in that group under a ruling of the Civil Service Commission, we must charge them to the classified limitation after the 1st of July.

Mr. KELLEY. Will you please repeat that?

Mr. REED. Those people are now rated as calculating-machine operators, material checkers, etc., and under a ruling of the Civil Service Commission we must rerate them in the clerical group and charge them to the classified limitation, so that the reason why we are asking for the continuation of the \$3,500,000 is so we can include the second group within the classified limitation.

Admiral PORTER. They have allowed us until the end of the current fiscal year to carry them into the clerical limitation group.

Mr. KELLEY. How many stock men and policemen have you?

Mr. REED. There are 821 altogether.

Mr. KELLEY. What is their average pay?

Mr. REED. Approximately \$1,100 per annum.

LABORERS.

Mr. KELLEY. You have an item entitled "Miscellaneous laborers." How many have you?

Mr. REED. That is the unskilled labor engaged in handling stores in and out of the storehouses, around the storehouses, and so on, as distinguished from the skilled ratings of checkers, store laborers, etc. It is the common labor.

Mr. KELLEY. Do you think you will need as many next year?

Mr. REED. Yes, sir.

Mr. KELLEY. I presume that is because of the scrapping of these ships?

Mr. REED. Yes, sir. The ships which will be decommissioned will turning in their stores; they have to be sorted and the stock dissolved of to the best advantage, either through shipment to other yards for use or offered for sale.

Admiral POTTER. It is immensely important that the stores be handled as they come in, otherwise they accumulate and purchases might be made in consequence of not having the stock available for instant use, so that if we keep the stores flowing it is an advantage every way.

Mr. REED. Unless we can keep our stock sorted and our records up, that we know what we have on hand, we would undoubtedly buy hundreds of thousands of dollars worth of materials that we had on hand, possibly in the same yard for which the purchases were made.

MATERIAL FOR ISSUE TO SHIPS AND OFFICE APPLIANCES.

Mr. KELLEY. The next item you have is material for use and under that heading you have fuel, heat, light, and power in offices and stores, \$169,135, and office appliances, \$94,035. Do you need to buy more of these appliances during the coming year?

Mr. REED. The office-appliance end of it is largely the rental of the tabulating machines we use in our accounting departments, as well as the cards and supplies that go with them. As far as purchases of additional typewriters and adding machines are concerned, they would practically be nil. That is one of the clauses we must carry because it might be necessary to purchase a particular item.

BOOKS, BLANKS, STATIONERY, ETC.

Mr. KELLEY. Books, blanks, and stationery, etc., \$157,040.

Mr. REED. We furnish all forms used for accounting purposes here and the stationery used in the supply departments.

Mr. KELLEY. These figures are based on your present expenditures, are they?

Mr. REED. No, sir; there is a reduction from the present expenditures for this purpose of nearly 25 per cent.

Mr. KELLEY. Packing boxes and materials, \$165,052.

Mr. REED. That is used in preparing the materials for shipment to the fleet and other stations. We use the scrap materials that come in as far as we can, but we do have to purchase new materials.

TRANSPORTATION—TRUCKS, LOCOMOTIVES, ETC.

Mr. KELLEY. The next heading is transportation—trucks, locomotives, cranes, etc. What is your explanation of that?

Mr. REED. We are charged at the industrial yards with a proportionate share of the expense of transporting supplies in and out to the eight stations, and so on.

Mr. KELLEY. The amount of that item is \$60,750?

Mr. REED. Yes, sir.

INTERIOR FITTINGS, ETC.

Mr. KELLEY. Interior fittings—shelving, racks, lockers, bins, partitions, etc., \$104,750.

Mr. REED. That is an expenditure which is necessary for taking care of the supplies we are getting in from ships, and so on, especially the ships going out of commission.

LABORATORY EQUIPMENT.

Mr. KELLEY. Laboratory equipment, \$7,090.

Mr. REED. That also includes supplies and is practically all for supplies in our chemical laboratories, where we have to make tests of steel, rubber, textiles, and other materials which we purchase.

TOLLS, FERRIAGE, ETC.

Mr. KELLEY. Tolls, ferriage, and miscellaneous, bridge tickets, ferry tickets, and miscellaneous expenses of disbursing officers, \$156,425.

Mr. REED. That is for supply, accounting, and disbursing officers. They are various charges incurred on account of the shore stations and which are not chargeable to any of the headings above.

Mr. KELLEY. What do you mean by bridge tickets?

Mr. REED. We must have bridge tickets when we send employees or supplies across bridges. In some places we must pay toll.

Mr. KELLEY. That applies to your shore stations?

Mr. REED. Yes, sir. You will note that the bulk of our expense is ashore.

SHIPS' EQUIPMENT.

Mr. KELLEY. You have an item for expenses of ships' equipage.

Mr. REED. The expenses there are based on the ships which it is proposed to keep in commission and on the usual replacement that is necessary in regard to items of equipage.

Mr. KELLEY. The amount is \$224,610?

Mr. REED. Yes, sir. There are three light cruisers going into commission and the equipage for them will have to be furnished from this amount.

Mr. KELLEY. What do you mean by equipage?

Mr. REED. Well, it would be the classes of material that the Bureau of Supplies and Accounts pays for—safes, adding machines, typewriters, and comptometers.

Mr. KELLEY. These are office supplies?

Mr. REED. Yes; the office end of it.

Admiral POTTER. And mess-room equipment?

Mr. REED. Yes, sir; silver, linen, etc.

Admiral POTTER. And we are charged with furnishing musical instruments for the bands, too. That is just an ancient custom.

Mr. REED. That is one of our inheritances from the abolishment of the Bureau of Equipment.

SUPPLIES.

Mr. KELLEY. You have an item of supplies totaling \$377,780.

Mr. REED. Those are based on the allowances to the ships of the various classes of expenditure chargeable to our appropriation. As to the first four items an allotment is fixed for each type of ship and the amount required is based on the number of ships and the amount

their authorized allowances. The removal of garbage and ashes is necessary at ports where we have no garbage or ash lighters and where they are not allowed to throw the garbage and ashes overboard into the harbor.

Mr. KELLEY. That makes a grand total of \$8,131,189 against \$500,000 this year.

Mr. REED. \$9,000,000. As I say, we have assumed charges formerly paid otherwise amounting to approximately \$2,100,000.

NAVAL SUPPLY ACCOUNT.

Mr. KELLEY. How much money have you in the naval supply account?

Admiral POTTER. \$253,000,000 or \$254,000,000.

Mr. KELLEY. How much of that is cash?

Mr. REED. We have about \$7,000,000 standing to our credit on the books of the Treasury, but as against that there are outstanding contracts for the delivery of supplies which will be coming along amounting to about \$32,000,000; at the same time, as those supplies are being delivered there will be issues, so that credits will accrue to the fund.

Mr. KELLEY. What reason is there for keeping that fund so large?

Admiral POTTER. We believe ourselves that it ought to be about \$50,000,000.

PROCEEDS FROM SALE OF SURPLUS PROPERTY.

Mr. KELLEY. How would you suggest it could be brought down?

Admiral POTTER. I would suggest that we continue doing as we are doing, namely, selling undesirable stock. I mean, stock not desirable for naval purposes, and as rapidly as the market permits, and gradually that thing will work out so far as undesirable stock is concerned.

Mr. KELLEY. When you sell stock that you do not need for naval purposes the money goes in the Treasury to the credit of this fund.

Mr. REED. No, sir; it goes to miscellaneous receipts.

Mr. VINING. When material is declared surplus and it is sold as surplus the receipts go into the miscellaneous receipts.

Mr. REED. So the Comptroller General has recently informed us, though we did not know that until recently.

Admiral POTTER. Under the Comptroller General's recent ruling the matter will gradually take care of itself.

Mr. KELLEY. Suppose you had an article that was carried in the naval supply account at a certain figure, it was declared surplus to the Navy Department and sold at half that figure, how would you straighten that out on your books?

Mr. REED. We would charge it off as a loss in the capital account.

Mr. KELLEY. So it requires no legislation?

Mr. REED. No, sir; we have authority to charge off that loss.

Mr. KELLEY. When did you get that authority?

Mr. REED. In the act of March 1, 1921.

Admiral POTTER. At one time this account ran over \$300,000,000, we are now down to \$255,000,000.

Mr. KELLEY. When you sell to the Navy Department, why can this same principle apply and have the money go into the Treasury and bring your fund down in that way?

Admiral POTTER. The Navy only buys desirable stock, stock wants to use, and if half of that each time went into the Treasury there would be a constant diminution of the available liquid stock and by and by we would not have any money with which to buy a thing new.

Mr. KELLEY. Suppose you dropped it down to \$150,000,000.

Admiral POTTER. Our effort would be to sell the undesirable stock and keep in stock about \$150,000,000 worth of live stock, and that is what we are trying to do now.

Mr. BYRNES. Have you \$100,000,000 worth of stock that you would sell?

Admiral POTTER. Yes, sir.

Mr. BYRNES. In order to reduce it to \$150,000,000?

Admiral POTTER. Yes, sir. We are taking a new inventory with a view of establishing that, and we have been doing that since the part of November. We did have inventories before that, but we were taking an elaborate new inventory.

Mr. BYRNES. What constitutes the greater part of that—I mean the \$100,000,000 you would like to sell in order to reduce your fund?

Secretary DENBY. He would not actually get \$100,000,000.

Mr. BYRNES. No; but it would enable him to reduce his account in the manner he has described.

Mr. REED. The inventory work and the work in connection with picking out the material which should be disposed of is one of the things that is costing us money in the Navy.

KIND OF MATERIAL ON HAND.

Mr. BYRNES. You have such an inventory now?

Mr. REED. We have had an inventory, but it has been necessary to retake it, because inaccuracies have been found in some of it because of the way the materials were stored, and also to revise the amount reported surplus during the past two years; in some cases it has been found that we had more on hand than could be disposed of and in other cases unexpected demands came up which made a lesser quantity available. So that work is being gone over all the time in order to keep the information current.

Admiral POTTER. I had a special note as to some of these items. I can give you some of them without the note. We have an enormous quantity of copper that we do not think we will need; it is perfectly good stuff, but we are only holding it now because we do not think the market is good.

Mr. BYRNES. You have no market for it at all?

Admiral POTTER. Not a good enough market. We have spare machinery parts—bolts, nuts, rivets, and washers; we even have a lot of spare hemp; it is perfectly good hemp, but there is not much use of it; we have canvas and canvas equipage; blocks and wrecking accessories; we have all kinds of heavy metal.

Mr. BYRNES. It is scattered all over the country?

Admiral POTTER. Yes; but there is far more of it at the naval supply depot in New York than anywhere else; there is also a considerable quantity at Boston and Hampton Roads. Those three places, perhaps, have the most.

Mr. BYRNES. I think you should have the right to sell it as quickly as you can, but there are some things for which there is a very poor market at the present time.

Admiral POTTER. We are selling just now a little less than \$600,000 worth a month, but we did much better than that for over a year after the war. The total amount sold has been \$113,000,000, but at the present time it runs pretty close to \$600,000 a month.

Mr. OLIVER. What percentage of the original cost are you realizing?

Admiral POTTER. We are now recovering about 27 per cent; for a long time we recovered almost 50 per cent, a very high return, but that is not so now. If we average 30 per cent when we have finished we will do extremely well.

Mr. KELLEY. Your purchases are mainly for the Bureau of Ordnance. Do they purchase from you?

Admiral POTTER. From the naval supply fund, you mean?

Mr. KELLEY. Yes.

Admiral POTTER. No, sir. They usually buy with their own appropriations.

Mr. KELLEY. And their funds are not tied up in this at all?

Admiral POTTER. No, sir. However, there is about \$400,000,000 worth of ordnance that we are carrying on our books, but it does not enter into this fund at all. We are carrying it on our books, but it does not enter into this fund.

Mr. KELLEY. How do they carry that? Do they own it?

Mr. REED. The Navy does. It was purchased out of ordnance appropriations and was never in the naval supply account.

Mr. KELLEY. Do you have that much material on hand?

Mr. REED. Yes, sir.

Mr. KELLEY. \$400,000,000 worth?

Mr. REED. Yes, sir.

Mr. KELLEY. What sort of material is it?

Admiral POTTER. Admiral McVay is here and he can tell you.

Mr. KELLEY. What sort of material is it, Admiral?

Admiral McVAY. Guns, ammunition, torpedoes, and finished technical ordnance material.

Mr. KELLEY. It is not raw material?

Admiral McVAY. It is not the material you are talking about; it is finished technical ordnance material.

Mr. KELLEY. Does this include your reserve stock of guns?

Admiral McVAY. Yes, and reserve stock of ammunition.

Mr. KELLEY. And reserve stock of torpedoes?

Admiral McVAY. Yes, sir.

Mr. KELLEY. And any other material you might have on hand?

Admiral McVAY. Any technical ordnance material.

Mr. BYRNES. It includes everything except that which is on board ship?

Admiral McVAY. Yes, sir.

Admiral POTTER. The largest single item is reserve ammunition, 28,000,000.

Mr. KELLEY. Are you selling surplus stock?

Admiral McVAY. Not yet, sir.

Mr. KELLEY. Have you any for sale?

Admiral McVAY. Not at the present time, but we expect to have.

Mr. KELLEY. How much did you sell last year, if any?

Admiral McVAY. I do not know how much we sold last year.

Mr. KELLEY. Have you looked into this, Admiral Coontz, being Budget officer of the Navy, to see how much these stocks could be reduced and the money turned into the Treasury?

Admiral COONTZ. I have paid particular attention to the naval supply account, to the sale of ships, and everything of that character as being the quickest to get rid of.

I have not gone into the question of the ordnance material, because I knew that most of that was manufactured, and it would be a delicate matter to dispose of certain kinds of it after the treaty.

REDUCTION OF NAVAL SUPPLY ACCOUNT.

Mr. KELLEY. What would be your recommendation about the naval supply account, Admiral?

Admiral COONTZ. My recommendation is to reduce it to \$150,000,000, reducing it slowly but gradually to the best interests of the Government. Whether that should be done by half and half I would leave to the judgment of Admiral Potter, but I think it should be slowly brought down to \$150,000,000, with its conversion into Treasury cash.

Mr. KELLEY. How much was it before the war?

Admiral POTTER. About \$72,000,000 or \$73,000,000.

Mr. KELLEY. Would not \$100,000,000 be all that you would need for material? What would be the ratio between material and personnel in the way of money?

Admiral POTTER. I do not think I am prepared to say. We are at the \$150,000,000 roughly along these lines. The amount of purchases of material from those appropriations, as shown by a number of years' past experience, has been from \$72,000,000 to \$75,000,000 a year.

Mr. KELLEY. This would give you two years?

Admiral POTTER. That was our idea precisely.

Mr. KELLEY. What is the principle running through the mind of your officers, that you should have a two years' stock of everything?

Admiral POTTER. That is what we have now. Lately, in order to expend as little money as possible, make as few purchases as possible, we have cut it down very much, and we do not make purchases more than a six months' supply on the east coast and a nine months' supply on the west coast.

Mr. KELLEY. Do you know of any special reason why it should be reduced another \$50,000,000 under what you suggest?

Admiral COONTZ. Yes, sir. We went into it very deeply, and thought after the first crack that it could not be brought below \$150,000,000, and it ought to be brought down slowly. Within the past year the Secretary has considered and directed—as has been brought out here to-day—the depletion of war stocks right straight along, and I should advise against making that figure at present less than \$150,000,000. Later on we might.

Admiral POTTER. The time is not yet ripe.

Mr. KELLEY. Would your recommendation coincide with Admiral Potter's, that the reduction should be made only from the sale of plus stock?

Admiral COONTZ. That is the best way. The other way would be a certain percentage from the sales, but he does not believe we can do that, and I agree with his judgment. He ought to know how it can be done. It is a matter of experiment to bring it down as quickly as we can for the economic condition of the Government and the same time get all the money into the Treasury as quickly as can.

Mr. KELLEY. Of course, his method would have this effect, that it would take out the deadwood first and then you would know exactly what valuable stock to carry and have on hand?

Admiral POTTER. That is the only stuff that the bureaus will draw, usually.

Mr. KELLEY. And after you knew that you could further reduce it?

Admiral COONTZ. You could see what your turnover of good stock

Mr. KELLEY. Otherwise, if you reduced it from sales, you would reduce it very quickly to \$150,000,000?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. You will find of that \$150,000,000 quite a large percentage of it was very much depreciated?

Admiral COONTZ. Yes, sir.

Admiral POTTER. I would let go any part of it in a minute that we not find we had need for. There is nothing for the Navy in hold-onto this stock—it is only a horrible nuisance.

CLOTHING AND SMALL STORES.

Mr. KELLEY. The next item is on page 90, clothing and small stores, which you are not asking any money this year?

Mr. REED. No, sir.

Mr. KELLEY. You simply want the same language that you had before?

Mr. REED. Yes, sir.

Mr. KELLEY. How much of a supply of clothing have you?

Mr. REED. Since we have reduced the price the value of material on hand is about \$37,000,000.

Mr. KELLEY. You do not need but three or four million dollars a year?

Admiral POTTER. Three or four million dollars a year for issues, to pay away to newly enlisted men. But we sell about \$7,500,000 to end men. I think that could be reduced.

Mr. KELLEY. To about \$5,000,000 altogether?

Mr. REED. Yes, sir; the issues for next year.

Mr. KELLEY. So you have clothing to last you for four or five years. Suppose that is clothing that you can not sell?

Admiral POTTER. We sell undershirts and the law lets us sell such things as overcoats when we remove certain distinguishing devices, we sell quite a good deal of cloth.

Mr. BYRNES. What is the value of the stock you have on hand?

Admiral POTTER. About \$37,000,000.

Mr. BYRNES. How many years will that supply you?

Admiral POTTER. Of course, it depends on the number of men.

Mr. BYRNES. Assuming the Navy at 65,000 men for the purposes of the figure.

Mr. REED. Between four and five years' stock. Of course, in some items we are overstocked and in others we are short.

Admiral POTTER. I would estimate a little more than that.

Mr. KELLEY. It would last longer than that, because they restock.

Admiral POTTER. Between seven and eight years.

Mr. BYRNES. You have to make purchases of certain sizes, but I suppose you have enough to last six or seven years?

Admiral POTTER. Practically.

Mr. BYRNES. Is it an economical thing to do, to keep it instead of selling it?

Admiral POTTER. We sell quite a good deal, but it is our surplus that we will not use for many years. The great bulk is good.

Mr. BYRNES. And represents over \$6,600,000?

Admiral POTTER. Yes, sir.

Mr. BYRNES. You estimate on using \$7,500,000 next year?

Admiral POTTER. Yes, sir.

Mr. KELLEY. But you intend to replace that?

Mr. REED. \$1,800,000 will be issued under the outfits of first enlistment. Repurchases for replacement only will be made.

Mr. KELLEY. The money will be held in the fund?

Mr. REED. Yes, sir.

Mr. BYRNES. Under this item you have a stock of \$35,000,000, approximately.

Mr. REED. Yes, sir.

Mr. BYRNES. And under the authority here given you will sell to the men clothing to the amount of \$7,500,000?

Mr. REED. Yes, sir; about.

Mr. BYRNES. That is your estimate?

Mr. REED. Yes, sir.

Mr. BYRNES. That amount of money paid to you by the men is not covered into the Treasury but by law is made available for expenditure by the department?

Mr. REED. For the procurement of more clothing for further sales to men as needed.

Mr. BYRNES. When you purchase the clothing, you will then have all the stock on hand?

Mr. REED. If we bought as rapidly as we issued, the stock would remain at \$35,000,000.

Mr. BYRNES. How much do you estimate you will buy?

Admiral POTTER. We probably will not buy \$5,000,000 worth.

Mr. BYRNES. The \$2,500,000—what becomes of that?

Admiral POTTER. That will be in the Treasury to the credit of the Navy Department.

Mr. BYRNES. But in no case is there a reduction in this amount which permits any money to go back to the Treasury to the credit of miscellaneous receipts?

Mr. REED. To this extent, that beginning with the fiscal year 1921 the appropriation bill carried a provision that outfits on first enlist-

ment shall be issued to the men without reimbursement to the clothing fund. The bill before that carried an appropriation to pay for initial outfit of \$100, and during the fiscal year \$5,600,000 was used as outfits to first-enlistment men for which we received no reimbursement. During the first six months of this year, 1922, the charges so far reported for outfits on first enlistment have been about \$600,000. There has been very little recruiting. There is \$600,000 clothing that has been issued for which we have obtained no reimbursement.

Mr. BYRNES. It reduces it only to the extent that you authorized the issuance without requiring payment?

Mr. REED. Yes, sir; that is it.

Mr. BYRNES. But, as I understand, under this item you will get back over \$500,000?

Mr. REED. If we issue that amount of clothing, it will be turned to the Treasury.

Mr. BYRNES. To the credit of this account?

Mr. REED. To the credit of the Navy.

Mr. OLIVER. In other words, it is a trust fund in the hands of the Treasury subject to your draft for the replenishing of the stock?

Mr. REED. Yes, sir.

Mr. OLIVER. How much have you now to your credit on which you are authorized to draw in cash?

Mr. REED. On the 30th of June, \$388,000 in cash. Last year we had an overobligation on the fund of some millions of dollars, which is just being taken care of in the recent deficiency bill.

Mr. KELLEY. This fund could probably be reduced to some \$20,000,000 without doing any damage?

Mr. REED. Yes, sir.

Mr. KELLEY. And as you sell the surplus of clothing we can provide that the money from the sales shall go to the Treasury until this fund reaches \$20,000,000?

Admiral POTTER. You would not want to do that, because we would not have any liquid capital in the Treasury to draw against.

Mr. KELLEY. That is true; you would have to have some.

There is something like \$15,000,000 or \$20,000,000 which could be released.

Admiral POTTER. Eventually.

Mr. KELLEY. From this fund simply by giving you a little leeway to purchase odd articles that you do not carry in stock.

Admiral POTTER. Until I have had a chance to make necessary calculations, I would prefer not to give an estimate of the percentage of releases that might be turned into the Treasury.

Admiral COONTZ. This matter has been given careful thought by the Secretary and his counsel, and all with the idea that as fast as we could we would reduce it and get the money into the Treasury.

Mr. KELLEY. Of course, you can not reduce it and get the money to the Treasury unless some provision is made for it?

Admiral COONTZ. Yes, sir.

CIVILIAN EMPLOYEES IN BUREAU OF SUPPLIES AND ACCOUNTS IN WASHINGTON.

Mr. KELLEY. Under maintenance, Bureau of Supplies and Accounts, you have carried, as I recollect, provision for your force in Washington?

Mr. REED. Yes, sir.

Mr. KELLEY. The allotment office, the disbursing office, and the property accounting office?

Mr. REED. Yes, sir.

Mr. KELLEY. Those three aggregated \$538,340 on February 14?

Mr. REED. Yes, sir.

Mr. KELLEY. Can not we take that sum out of your maintenance for Supplies and Accounts and put it over in the part of the bill which formerly was carried by the legislative bill?

Mr. REED. There is absolutely no objection to that—the transfer of funds. That would mean a reduction under maintenance and a corresponding increase under salaries, Bureau of Supplies and Accounts.

Mr. KELLEY. What portion of the \$265,950 for the allotment office as now employed there will you need for this year?

Mr. REED. \$163,350.

Mr. KELLEY. What portion for the disbursing office?

Mr. REED. \$141,790.

Mr. KELLEY. How much for the property accounting office?

Mr. REED. \$125,600 in lieu of the \$130,600.

Mr. KELLEY. To be distributed according to the statement transmitted by the Secretary on the 14th of February?

Mr. REED. Yes, sir.

Mr. KELLEY. Are there any other employees in Washington paid from other appropriations?

Mr. REED. Not in the Bureau of Supplies and Accounts or under any of its appropriations.

STATUTORY EMPLOYEES, SALARIES OF.

Mr. KELLEY. On page 94 the item "Salaries, Navy Department" is for the Bureau of Supplies and Accounts?

Mr. REED. Yes, sir.

Mr. KELLEY. You have indicated some changes in your statutory roll?

Mr. REED. Yes, sir.

Mr. KELLEY. The first item on the salary roll is the civilian assistant for whom you are asking an increase of salary from \$2,500 to \$3,250?

Mr. REED. Yes, sir.

Mr. KELLEY. The Committee on Appropriations is not increasing any salaries. Then, you are asking for an increase in a number of positions and a decrease in others?

Mr. REED. That is because we are carrying on our rolls at the present time one clerk at \$1,600, detailed to duty in the Secretary's office. That position has been taken up on the rolls of the Secretary's office. There is one of our clerks who is carried on the Secretary's roll.

Mr. KELLEY. There is one clerk on the Secretary's roll to be brought back?

Mr. REED. Yes, sir.

Mr. KELLEY. Just a swap?

Mr. REED. Yes, sir; and to straighten out the appropriation under the present distribution.

Mr. KELLEY. It is not an increase in the total number of employees?

Mr. REED. No, sir.

Mr. KELLEY. You propose to drop out 19?

Mr. REED. Yes, sir; one of those is transferred to the Secretary's roll. The other 18 we propose to drop out—a reduction in the force from this year's appropriation.

Mr. KELLEY. Then you ask for five assistant messengers instead of four?

Mr. REED. That is to provide for the pay on our roll of a messenger now carried on the roll of the Secretary's office.

Mr. KELLEY. That is another swap?

Mr. REED. Yes, sir.

TEMPORARY EMPLOYEES.

Mr. KELLEY. For temporary employees in the Bureau of Supplies and Accounts you are asking for \$245,520 and you have this year 250,000?

Mr. REED. Yes, sir; we have made a decrease of \$18,000 on the statutory roll and a decrease of \$5,000 on the lump-sum roll, a total decrease of \$23,000 in the appropriation from this year's authorization.

Mr. KELLEY. How many clerks are carried on this temporary roll?

Mr. REED. We have 170 at the present time.

Mr. KELLEY. How about next year?

Mr. REED. We have cut out \$23,000, and so our salary appropriation will represent a decrease of over 10 per cent from what we had this year.

Mr. KELLEY. How many employees did you cut off?

Mr. REED. We dropped 18 positions.

Mr. BYRNES. In this list you drop 11 positions and you are now going to drop 7 more?

Mr. REED. The appropriation on the 1st of November was obligated. On the 1st of November we had 188 positions at an annual compensation of \$260,000. We are making a decrease. We had more employees than we could carry throughout the year, so that we are asking for 177 at \$245,000 as against 188 that we had on the 1st of November. From the lump-sum appropriation we drop 11 that we had at that time and we drop 18 from the statutory roll.

Mr. KELLEY. You will have to keep track of all the contract suspensions and cancellations?

Admiral POTTER. Yes, sir; and the settlements. The bureaus will make more demands upon us. We give them more complete data from month to month and we expect to continue to do that. Our work will certainly increase, if anything.

Mr. KELLEY. You have here in the limitation an increase evidently salary, one at \$4,000 raised to \$5,000?

Mr. REED. Yes, sir. The one at \$5,000 instead of \$4,000 is intended to bring back on the bureau roll an employee now in the property counting office. So, if the salaries are combined as you suggest, it would not involve an increase there.

Mr. KELLEY. This particular employee is now getting this sum of money?

Mr. REED. Yes, sir.

Mr. KELLEY. It is only a transfer from one roll to another?

Admiral POTTER. That particular employee bears a weight of responsibility not borne by many people in the entire service.

Mr. KELLEY. I do not think it would be amiss to ask the name of that employee?

Admiral POTTER. Mr. Clyde Reed. Mr. Kelley.

Mr. REED. That represents a reduction from two to one, one being transferred to the Secretary's office, he being on detail there.

Mr. BRYNES. There is no increase there?

Mr. REED. No, sir; that is a decrease of one position in the Bureau of Supplies and Accounts, and an increase of one in the Secretary's office.

Mr. KELLEY. Who is this?

Mr. REED. That is the chief of the appointment division, carried on our rolls at \$3,000.

Mr. KELLEY. He is now carried on what roll?

Mr. REED. On our roll. We are taking off one at \$3,000, and adding one at \$3,000 to the Secretary's office by transfer from the Bureau of Supplies and Accounts. We are now carrying him on the roll of the Bureau of Supplies and Accounts. He is the chief of the appointment division.

Mr. KELLEY. You are transferring one to the Secretary's office, and you are asking that the other be retained?

Mr. REED. Yes, sir.

Mr. BRYNES. There is one at \$2,500 and one at \$3,000, and each remains at the same salary?

Mr. REED. Yes, sir.

FREIGHT.

Mr. KELLEY. The next item is freight.

Admiral POTTER. The estimate for freight that appears here is \$5,000,000. Whether we can get through on that, is problematical. We will, of course, make every effort to do so if you see fit to allow it. We went to work on this basis: We considered our past experience and made a sort of mental allowance for skeletonizing the activities at all except a limited number of yards. Whether that is right, or not, remains to be seen. We then estimated that we would transport this year 280,000 tons of freight in all. Of that amount to the west coast will go 200,000 tons and on the east coast we will carry 80,000 tons. Of the 200,000 tons that we anticipate being transported to the other coast, we expect to carry 30,000 tons by Government conveyance. That is fairly accurate, based, of course, upon vessels that we are informed will likely be available. We expect to send by commercial water shipment to the west coast 135,000 tons, and by commercial rail shipment to the west coast 35,000 tons. The water movement to the west coast will average us, as nearly as we can hit an average on the different classes of material, \$25 per ton. That is to say, 135,000 tons by water movement, at \$25 per ton, will amount to \$3,375,000. The rail shipments will average \$43 per ton, and 35,000 tons by rail shipment to the west coast at \$43 per ton will equal \$1,505,000.

Some of the 80,000 tons that we expect to transfer along the Atlantic coast will be by water and some by rail. It is very difficult to give an accurate average there, because that depends upon circumstances. We have arrived at a mixed rate, for want of a better word, of \$8 per ton, making \$640,000. The total for all that, if it should work out in the way we have estimated, would be \$5,520,000.

Mr. KELLEY. And you make your estimate \$5,000,000, in round numbers?

Admiral POTTER. Yes, sir.

Mr. KELLEY. How much do you have this year?

Admiral POTTER. This year we have had altogether, counting what you allowed us the other day, \$5,600,000. It was first \$4,000,000, and we asked \$2,000,000 more. You allowed us \$1,600,000 more, or \$5,600,000 in all, for 1922.

Mr. KELLEY. The freight next year might be more or less, depending upon how you gathered your stuff together after you have shipped it.

Admiral POTTER. That is an important feature.

Mr. KELLEY. You did not try to work it out upon the basis I suggested the other day?

Admiral POTTER. We gave earnest consideration to that. We thought that the proper thing to do for this year would be in the case of purchases east of the Mississippi River, to purchase f. o. b. delivered, and for purchases west of the Mississippi, where there is so much of land-grant railroad rates, to purchase f. o. b. the point of origin, unless for some special reason it should be purchased otherwise. Then, of course, the bill of lading would apply from point of origin. We thought that would probably be the best way. I talked with the chairman of the Federal Traffic Board, who is an officer of the Supply Corps of the Navy, appointed by Director of the Bureau of the Budget, and he is very strong for making purchases f. o. b. point of origin for shipments west of the Mississippi in order to take advantage of the land-grant rates. There will be a very substantial saving on account of the land-grant rates, and he is very strong for that.

Mr. KELLEY. That would make a perfectly clear line of demarcation, so that you could figure it with some accuracy.

Admiral POTTER. Yes, sir. It is hoped that eventually there will be a general freight appropriation for each department—not for all departments, but for each department.

Mr. KELLEY. The fact is that if you included in your cost the freight on any article, this sum could be made almost any sum—that is, down to the actual amount necessary to pay the freight on Government property transferred from one place to another.

Admiral POTTER. I do not understand that.

Mr. KELLEY. Let us get at it this way: When you buy any property for the Government, whether food or any other supplies, and make your contract with the price at the point where you want it delivered, in all such cases you include the freight in your cost?

Admiral POTTER. Yes, sir.

Mr. KELLEY. Now, if you made all of your contracts that way, is only freight provision you would need would be sufficient money to pay the freight on property owned by the Government that had to be transferred from one place to another?

Admiral POTTER. Yes, sir.

Mr. KELLEY. You propose to put that system into effect east of the Mississippi River but not west of the Mississippi River?

Admiral POTTER. Yes, sir.

Mr. KELLEY. It will make a rule upon which you can make your estimate for freight in the future.

Admiral POTTER. Yes, sir; if you will allow me, I will put in the hearing a lot of details of the rates on different classes of material.

Mr. REED. It justifies the figures of \$25 and \$43 that we gave you.

Mr. KELLEY. You may insert that in the record.

(The matter referred to follows:)

All-water transportation rates.

	Mare Island from New York or Norfolk.	Puget Sound from New York or Norfolk.
Copper, brass bars.....	\$2.10	\$2.15
Waste (cotton).....	1.40	1.40
Explosives (high).....	4.00	4.00
Wire rope.....	1.20	1.20
Fuel oil.....	2.00	2.00
Paint.....	1.20	1.20
Hardware.....	3.00	3.00
Average commercial rate.....	2.10	2.15
Average cost per ton per mile.....	.00933	.0095

The Navy would be entitled to a reduction of 10 per cent from this rate on freight other than that entitled to the \$1.25 rate moving on Government bills of lading.

The average cost per ton per mile for this traffic would be: To Mare Island, \$0.00831; to Puget Sound, \$0.00537.

The majority of the intercoastal steamship lines have published a blanket rate of \$1.25 per 100 pounds, minimum charge of \$2.50, per shipment on Government supplies, Navy, certain specific articles being excepted from this rate.

The average cost per ton per mile for this traffic would be: To Mare Island, \$0.00555; to Puget Sound, \$0.00359.

DAVID POTTER,

Paymaster General of the Navy.

Average rates, all rail and all water.

	Mare Island, from New York or Norfolk.	Puget Sound, from New York or Norfolk.
ALL RAIL.		
Canned vegetables.....	\$1.915	\$1.93
Structural iron and steel.....	1.915	1.93
Rope.....	1.915	1.93
Machinery.....	2.28	2.3
Guns and parts.....	3.245	3.25
Clothing.....	6.245	6.25
Airplanes and parts.....	6.245	6.25
Copper, brass, bars.....	3.205	3.25
Waste (cotton).....	2.245	2.25
Explosives (high).....	6.245	6.3
Wire rope.....	1.915	1.93
Fuel oil.....	1.805	1.85
Paint.....	1.915	1.93
Hardware.....	4.47	4.5
Average commodity rate.....	3.33	3.35
Average cost per ton per mile.....	.01903	.0195
Average Government rate.....	2.50	2.5
Average cost per ton per mile.....	.01426	.0145
ALL WATER.		
Canned vegetables.....	1.00	1.0
Structural iron and steel.....	1.00	1.0
Rope.....	1.20	1.2
Machinery.....	2.00	2.0
Guns and parts.....	2.50	2.5
Clothing.....	4.00	4.0
Airplanes and parts.....	6.00	6.0

statement of cost per ton per mile for transporting freight, rates being based the first-class rate between the points named:

Chilson, Kans., to Rocky Ford, Colo., 565 miles:

Commercial rate.....	\$1.44
Cost per ton per mile.....	.05097
Government rate.....	.84
Cost per ton per mile.....	.02973

Avenworth, Kans., to Fort Lyon, Colo., 542 miles:

Commercial rate.....	1.945
Cost per ton per mile.....	.07177
Government rate.....	1.235
Cost per ton per mile.....	.04557

San Francisco, Calif., to Ashland, Oreg., 430 miles:

Commercial rate.....	2.05
Cost per ton per mile.....	.06535
Government rate.....	.51
Cost per ton per mile.....	.02372

New York, N. Y., to Raleigh, N. C., 500 miles:

Rate.....	1.60
Per ton per mile.....	.0640
(No land grant involved.)	

Worcester, Mass., to Richmond, Va., 575 miles:

Rate.....	.95
Per ton per mile.....	.03304

Buffalo, N. Y., to Charleston, W. Va., 510 miles:

Rate.....	1.085
Per ton per mile.....	.04250

DAVID POTTER,

Paymaster General of the Navy.

Mr. KELLEY. If we should make this a smaller sum than was required in practical operation, what you would do would be to pay our freight out of the other appropriation?

Admiral POTTER. There would be no other alternative. And in that case you might force us to pay what might be an uneconomical rate for the Government.

Mr. KELLEY. If you made a contract for the delivery of a carload of beef f. o. b. Chicago, would you be authorized under the law to charge up to the cost of that beef the freight from Chicago to Hampton Roads?

Admiral POTTER. No, sir; we could not do that.

Mr. KELLEY. You could not charge it up to the cost of the beef and figure it in the ration?

Admiral POTTER. No, sir.

Mr. KELLEY. Why should you not be authorized to do that? If I can make a contract for a price with the commodity to be delivered at Hampton Roads, the price including the freight, why could I not make the contract for delivery f. o. b. Chicago and pay the freight out of that same fund?

Mr. REED. That is because the wording of the appropriation for freight covers all freight and express charges pertaining to the Navy department, and under the rules of construction that are properly applied to appropriations if there is a specific appropriation made for a particular purpose you can not then use a general appropriation, which, in the absence of a specific appropriation, might be available.

Mr. KELLEY. It would force you to change the form of your contract so as to provide for a price to be fixed on the basis of delivery?

Mr. REED. Yes, sir; unless there was some modification of the existing law. We might purchase goods f. o. b. the mill, but if we had no money to pay the transportation charges out of freight we would have to make a contract providing for the delivery of the goods.

Mr. BYRNES. You would have the contract amended so as to provide for the delivery of the material where you wanted it.

Mr. REED. The Government, however, might lose money there on account of land-grant rates.

Mr. KELLEY. But there need never be a deficiency in freight so long as we make an appropriation large enough to pay the freight on commodities already in the possession of the Government that are to be shipped from one point to another.

Admiral POTTER. That is sound in theory; yes, sir.

Mr. KELLEY. I think you are to be congratulated on not straining the situation at all and for simply taking the law as it stands, although there is no difference in the end, unless it be in the case of the land-grant rates. How do you check up freight bills?

Admiral POTTER. By order of the present Secretary of the Navy all freight movements now must first be referred to the Bureau of Supplies and Accounts before they are made, except medical shipments and emergency shipments of provisions. They come in to us and the actual classification and routing are written into it. This procedure in itself prevents the railroads from routing improperly and from making improper classifications. What I have just said applies to shipments of two carload lots or more. If a shipment is only one carload lot it goes through without ceremony.

Mr. KELLEY. Do you pay freight bills prior to the Government audit?

Admiral POTTER. We pay them prior to the General Accounting Office audit, but we give them an administrative audit ourselves. We pay no freight bills in the field. They are sent in to Washington, and we make the claim that we have as expert a group of railroad bill auditors as exists, and the Bureau of the Budget has been kind enough to say the same thing about it. We pay bills, but we pay no bills that are in dispute. If there is any point in the bill of a railroad department that is disputed either by the railroad or by ourselves we strike that out and they have to submit two new bills. Then we pay the bill which we agree is correct and send the other over to the General Accounting Office. I understand that some other departments of the Government, if there is anything contentious in a bill, refuse payment of the whole bill, and then send it to the General Accounting Office. Of course, that gives rise to some protest on the part of the railroads, because that means the postponement of settlement for six months or a year.

Commander C. G. Mayo, of the Supply Corps of the Navy, is chairman of the Federal Traffic Board. He was so appointed by the President after General Dawes, the Director of the Budget, had gone through the different departments and had observed that the most efficient payment method was the one then existing in the Navy Department. Since the last week in November they have referred all over two-carload lot shipments to office I refer to. As a result, that office has directed the routing and classification. That office has classified and routed up to this time something like 20,000 ship-

ents and they have prevented the overexpenditure of more than \$1,000,000. The anticipated prevention of overpayments will be more than \$1,000,000 this year.

Mr. KELLEY. When you get your bills in your own accounting office, provisionally at least, that office approves them, and you pay them on that audit?

Admiral POTTER. Yes: we approve, disapprove, or modify, and then pay.

Mr. KELLEY. Then when they are paid by you, the bills go to the General Accounting Office?

Admiral POTTER. That is correct.

Mr. KELLEY. And that office may disapprove something which you have paid?

Admiral POTTER. Yes, sir.

Mr. KELLEY. How often does that occur?

Admiral POTTER. It very seldom occurs with us. During the last six months the total amount disapproved by the General Accounting Office has been only \$600. On the other hand, we have recommended corrections in amounts allowed by the General Accounting Office of about \$2,500. Of course, there is no money lost when an inadvertent payment should be made, because it is easily recoverable from a railroad which is doing a going business; we simply withhold it from the next bill.

Mr. KELLEY. Suppose the bills were passed through your office to the General Accounting Office without payment by you at all and they audited them, would that do away with some 50 or 60 clerks in your department?

Admiral POTTER. I do not know about the exact figures.

Mr. KELLEY. If you did away with them there, would it require the addition of others in the other office?

Admiral POTTER. I assume it would, decidedly. I do not know what that number, 58, specifically applies to our railroad bills settlement section. However, that is an office which must continue anyway, because a large part of all the money spent for the Navy is paid out of this office, called the Navy disbursing office, and that office would have to run. I would like to verify your estimate of the number of clerks employed in the freight and passenger sections of the Navy disbursing office.

Mr. KELLEY. No doubt you are following the statute now?

Admiral POTTER. Absolutely.

Mr. KELLEY. Which provides that before these bills are paid you all make an audit?

Admiral POTTER. Yes, sir.

Mr. KELLEY. And satisfy yourselves as to their correctness?

Admiral POTTER. Yes, sir.

Mr. KELLEY. But occasionally there would be some bills that the General Accounting Office would return to you with instructions to collect some of the money that has been paid?

Admiral POTTER. That happens, but I do not remember any specially at this time.

Mr. KELLEY. It does seem as though bills were gone over twice in this way, audited once by your office and then audited by the General Accounting Office, and that one might be eliminated.

Admiral POTTER. There is a point in that theory, however, which is erroneous, namely, that the Accounting Office, of course, should not pay bills and then be its own auditors. They should not be disbursers of money and at the same time be their own auditors. That is certainly an erroneous principle if it be followed. If they have an office which pays bills they cease, properly speaking, to be an accounting office, but they are no doubt within the law.

The principle of a completed examination of an account prior to payment by a disbursing officer of the Government, and the final audit of the Navy disbursing officer's payment by an accounting office other than the one with which the disbursing officer is connected, has been accepted and has been in operation since the establishment of the Government, and this principle should apply with as much force to one class of accounts as to another. The contention that, owing to the difficulty in checking transportation accounts, it would be advisable to eliminate the Navy disbursing officer's examination is believed to be poorly founded. On the contrary, the proper view is that the more difficult the account, the more likelihood of error therein and the more reason for adhering to the principle used in connection with other accounts.

Records are available which show that the principle of an audit by the Navy disbursing officer prior to the payment of the transportation account has resulted in some saving to the Government by the Navy Department. In some cases additional amounts have been paid by the Treasury to carriers over and above the amount paid by the disbursing officer of the Navy when the final audit was made. The Navy disbursing officer upon receiving information as to this additional allowance, and having knowledge of certain administrative features surrounding the original payment, has been able to effect refunds from the carriers. If he were deprived of the opportunity of making a verification of the amounts payable, the administrative departments of the Government would be in no position to know whether the amounts paid and chargeable to their appropriations were just. The administrative departments of the Government are primarily charged with accurate disbursement of appropriations, and it is not deemed proper that exceptions should be made in the matter of transportation accounts. Government transportation accounts should be checked in their entirety before payment, and the General Accounting Office should make a complete audit of the transactions; this final audit after payment would entail no delay in the payment of the accounts and carriers would thus have no cause for complaint.

The highly technical duties involved in the checking of transportation accounts, particularly Government accounts which involve land-grant features, as conducted in the Navy disbursing office, is quite similar in principle to the method used by transportation companies. With such companies it is the universal practice for destination agents to make careful check of transportation bills before requiring payment from consignees, after which the bills are transmitted to the carriers' general accounting office, where an independent check from an entirely different file of tariffs is effected. This double check of rates on the carriers' part obviates innumerable overcharges and precludes a large number of claims.

The information derived by the Navy disbursing officer in the examination of transportation accounts prior to payment is invaluable in connection with the economical operation of the Bureau of Supplies and Accounts of the Navy. The data is absolutely essential in connection with purchases bought on f. o. b. point of manufacture basis, and in connection with sales of salvaged and other materials sold on f. o. b. point of manufacture basis. If this force of clerks were not available for determining this information, the purchasing officer would be in no position to properly award contracts, being without accurate information on which to base estimates in regard to amount of freight charges, which is a factor in determining the costs. This is especially true in connection with purchases that are made in the field, the field activities having no rate clerks and the information in connection with freight charges must be obtained from the Bureau of Supplies and Accounts in Washington.

There is serious objection to the principle of any disbursing officers' examination and the final audit being confined to one office, even if made by two separate persons prior to final settlement. There is liable to be uniformity of action which would be prejudicial to efficiency and an unbiased audit.

For the reasons I have given and in view of the further fact that it is understood that the entire question of Government accounting is now being closely studied by a board appointed under the orders of the Director of the Bureau of the Budget, it is urgently recommended that no change in the present method of payment and auditing of transportation accounts be taken until the final recommendations of said board are in the hands of the Government.

Mr. REED. Up until a few years ago transportation bills in which were involved land-grant deductions were all referred to the proper auditor's office and the rate board in the Treasury Department settled the case and they were paid on Treasury warrants, but that was changed some years ago and the Navy was requested to put in facilities for paying land-grant bills.

Admiral PORTER. I do not yearn to hold this section of the office, but matters would certainly not be expedited as much as we expedite them.

The number of employees in the Navy disbursing office engaged upon the actual audit of vouchers of transportation companies for carrying passengers and freight at the present time is 23.

Even if the General Accounting Office took over this work a number of clerks would still be required in this section of the Navy disbursing office for necessary administrative work, checking up the vouchers rendered, which services must be certified by an administrative officer before payment can be made; checking up loss and damage on shipments of Government material; issuing transportation orders and passing upon claims for the transportation of dependents of officers and enlisted men and their household goods upon a change of station; checking rates under travel expense claims, and furnishing information to the purchase division as to freight rates for comparative purchases.

As to the correctness of the audit now made by the rate experts in the Navy disbursing office, the following is of interest:

During the period from September 1, 1920, to June 30, 1921, General Accounting Office suspended in the accounts of the Navy disbursing officer as possible overpayments on account of passenger transportation the sum of \$599.44, but of this amount it was decided that \$311.11 had been properly paid, so that the total overpayment which are being collected from the railroads amount to \$288.33. During the same period on supplemental bills as to the correctness which the Navy disbursing officer was in doubt and which were cordially referred to the General Accounting Office for settlement. Payments amounting to \$2,546.57 were allowed by the accounting office and subsequently, upon representations from the Navy disbursing officer, were admitted to be overpayments and the Navy disbursing officer was requested to take the necessary steps to collect from the railroad companies the overpayments made to the transportation companies by the accounting officers in that amount.

Mr. KELLEY. Mr. Secretary, will you give this a little attention and see whether or not there may be some duplication here which might possibly be avoided between your accounting office and General Accounting Office. It is a matter of administration sometimes when your attention is specifically called to matter of this kind a beneficial change might result.

Secretary DENBY. In connection with that freight, I want to know whether I understood correctly; if I did not I would like to be corrected, and if I did I think you should again give attention to other items in the bill. If you are going to cut the freight of the theory that articles can be bought f. o. b. some points—

Mr. KELLEY (interposing). I did not have that in mind, but I was thinking of the deficiency situation. We did allow him a deficiency this year.

Secretary DENBY. That would not have any bearing on it. In other words, if you make an allowance for the articles at cost, then pay the freight on them out of one fund and that fund exhausted you would still be as much up a tree; you could not get them and you could not get them at all if the funds to pay for articles were exhausted. If you add the freight to the cost whatever figures were considered as the cost ought to be added.

Mr. KELLEY. That is what I had in mind, and in most cases suppose you do add the cost?

Admiral POTTER. It goes right in if it is purchased for delivery right at the yard.

Mr. KELLEY. And you buy food in that way?

Admiral POTTER. Yes, sir.

Mr. KELLEY. So that the ration would not be affected.

Secretary DENBY. You buy f. o. b. where?

Admiral POTTER. Point of delivery.

Mr. REED. At the navy yard?

Secretary DENBY. It is already bought that way?

Mr. REED. Yes, sir.

Secretary DENBY. Then freight is not a separate item?

Admiral POTTER. No, sir; not if the provisions are purchased f. o. b. point of delivery, but West of the Mississippi there are reductions on account of land-grant railroads—sometimes a 5 per cent reduction.

Mr. REED. From Ashland, Oreg., to Vallejo it is about 90 per cent. Mr. KELLEY. And there it is cheaper to buy at point of manufacture because you pay the freight?

Admiral POTTER. In that case, we pay the freight direct from this appropriation of freight, Supplies and Accounts.

TUESDAY, MARCH 21, 1922.

USE OF NEWPORT, R. I., INSTEAD OF HAMPTON ROADS, VA., FOR TRAINING MEN.

STATEMENT OF HON. CLARK BURDICK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND.

Mr. KELLEY. Mr. Burdick, a Member of the House from the State of Rhode Island, is present, and we will be glad to have him make any statement for the record that he desires.

Mr. BURDICK. Mr. Chairman, you know, of course, that the training station at Newport, R. I., is the first permanent training station on the Atlantic coast. It has permanent buildings, and boys have been trained for the Navy there right along up to within a year. Now they have taken them away from us and have been training them down at Hampton Roads. Hampton Roads is a war baby that was established in 1915 or 1916 and has been occupied ever since. As we understand the situation, it has temporarily constructed barracks and buildings. They have been in use for 5, 6, or 7 years now, and it seems to me that within a very short time they will have to be replaced. Now, I would not complain at all if we were going to acquire a large number of boys trained, but I understand that the personnel of the Navy will be cut down considerably. It seems to me that we have two factories—one a large plant down at Hampton Roads and the other a small plant at Newport, but the small plant at Newport is quite sufficient to turn out what we need, or pretty nearly all that we will need.

We can train down at Newport 10,000 boys per year. We can accommodate 2,500 there, and they have three-month periods, so that we could turn out 10,000. We can train those 10,000 down there at a cost of \$200,000. In the Budget there is a suggested appropriation of \$75,000 for the upkeep of that training station while not in use. Therefore it seems to me that if this committee should give us 25,000 more we could train all the boys for the Navy or all the boys that the Navy is going to need on the Atlantic coast. We find that about 40 per cent of the boys that go into the Navy come from the New England States, New York, Pennsylvania, and New Jersey. Taking the year 1921 as the basis, we find that about 40 per cent of the entire enlisted force of the Navy comes from those States.

Now, this matter has been before the Naval Affairs Committee of the Senate and they have requested the Secretary to submit figures. He has submitted two sets of figures, and I think the Secretary has submitted a third set. The last figure he submitted was on the 7th day of March, in which he shows that in the year 1921 it cost \$753,000

to run the training station at Hampton Roads, as against \$4 to run the naval training station at Newport. That, of course, includes the regular appropriation plus the allotments from the different bureaus.

Mr. KELLEY. Let me interrupt you there in order that we have the information in the record. Was that based upon the number of boys in training?

Mr. BURDICK. No, sir; they trained a total of 12,000 boys at Hampton Roads and 7,000 at Newport. Those figures were set up with the idea of ascertaining how much it cost per man at different training stations, and the Secretary figured out, and the department figured out, that it cost \$4.15 per man at Hampton Roads and \$4.71 per man at Newport, but the Secretary is now saying before the Naval Affairs Committee that quite a number of the items that are charged up against Newport are not included in those charged up against Hampton Roads. That explains the fact that Hampton Roads apparently has a smaller cost. Being a base, of course, they get heat, light, and power from the base that is apportioned. Now, if you are going to appropriate the amount suggested by the Budget, or \$365,000, that, of course, will be for the training of men; but, in addition to that, you have to add, according to the figures from the department, about \$300,000 to cover heat, light, water, and so forth, that they get from the base. Therefore, it seems to me that in cutting down the Navy and having a reduction in the number of apprentice seamen that you will get out it would be economy to train them at Newport. The mandant there is on record as saying that for \$200,000 he will get out 10,000 boys, and you can not run that big plant down the Hampton Roads for less than six or seven hundred thousand dollars even with that limited number of boys.

I do not think it is a fair comparison to take the cost per man although the figures as given to me by the training station show that it costs about \$42 per man to turn them out at Newport against \$54 per man at Hampton Roads. The Secretary figures that it costs about \$65 per man at Newport, but the trouble with those figures as a basis for comparison is that quite a large number of charges against Newport arise from the fact that the mandant of the training station happens to be the senior rating officer of the district, and therefore all the money goes through him. We have, of course, a coaling station and other activities, including the War College there. We have down there a fine plant. The buildings are fine buildings and they are now in perfect order. Of course, we also have Coddington Point, which is additional. It was a war measure and it was never occupied except for two or three months. I understood that it was the policy of Congress to get rid of that. The city paid at least one-half or two-third of the cost of that land. We have a good plant with permanent buildings enough to turn out all that you need with a Navy of 65,000 men.

Mr. OLIVER. You spoke of the buildings. How much has the Government spent on them in the way of repairs during the past year?

Mr. BURDICK. I do not know, but something like \$50,000, I think.

Mr. KELLEY. We are very much obliged to you for your statement.

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., March 17, 1922.

Number and class of vessels in the Navy on July 1, 1916, etc.

MR. MADDEN: As requested in yours of March 14, 1922, I forward herewith tabular statement showing number and class of vessels in the Navy on July 1, 1916, etc.

As my system of classification was changed in 1920, I have reclassified our vessels to agree with the present system so that comparisons can be direct. Vessels under construction are not included, and of district craft only those on the Navy list in the Navy Directory are included.

Very respectfully,

D. W. TAYLOR,

Rear Admiral, Chief Constructor of the Navy, Chief of Bureau.

MARTIN B. MADDEN,
House of Representatives, Washington, D. C.

8.—List of vessels in the United States as of July 1, 1916, and March 1, 1922.

Type.	(1) Ves- sels in the Navy July 1, 1916.	(2) Vessels added since July 1, 1916, under author- ization prior to that date	(2a) Ves- sels added under naval act, Aug. 29, 1916.	(3) Vessels em- braced by (1), (2), and (2a), stricken from Navy list (to Mar. 1, 1922).	(4) Vessels on Navy list Mar. 1, 1922, after adding (2) and (2a) to (1) and deduct- ing (3).	(5) Vessels added to Navy un- der sepa- rate and special au- thorization since Aug. 29, 1916 (to Mar. 1, 1922).	(6) Vessels em- braced by (5) strick- en from the Navy list (to Mar. 1, 1922).	(7) Vessels em- braced by (5) on Navy list Mar. 1, 1922.	(8) Vessels em- braced by (4) and (7).
As.	36	6	1	9	34	0	0	0	34
Second line.	7	0	0	7	0	0	0	0	0
Sers.	16	0	0	5	11	0	0	0	11
Arriers.	19	0	0	7	12	0	0	0	12
Arriers.	0	0	0	0	0	1	0	1	1
As.	0	0	0	0	0	4	0	4	4
Boats.	34	0	0	34	0	0	0	0	0
Boats.	47	11	38	114	82	219	0	219	301
Boats.	0	0	0	0	0	14	0	14	14
Boats.	0	0	0	0	0	6	0	6	100
Boats.	38	34	40	18	94	0	0	0	3
Boats.	0	3	0	0	3	0	0	0	20
Boats.	8	0	0	0	8	12	0	12	54
Boats.	0	0	0	0	0	60	6	54	64
Boats.	0	0	0	0	0	341	277	64	64
Boats.	38	0	1	19	10	0	0	0	10
Boats.	14	0	0	6	8	0	0	0	8
Boats.	20	2	3	5	20	10	0	10	30
Boats.	8	0	2	0	10	19	0	19	29
Boats.	47	0	0	29	18	22	0	22	40
Boats.	0	0	0	0	0	49	3	46	46
Boats.	1	0	1	0	2	2	0	2	4
Boats.	4	1	0	3	2	2	0	2	4
Boats.	4	1	0	0	5	4	0	4	9
Boats.	21	0	0	8	13	17	0	0	30
Total.	352	58	86	164	332	782	286	479	828
Boats:									
Boats.	(*)	(*)	(*)	(*)	(*)	40	14	26	26
Boats.	(*)	(*)	(*)	(*)	(*)	13	0	13	13
Boats.	(*)	(*)	(*)	(*)	(*)	0	0	0	48
Boats.	(*)	(*)	(*)	(*)	(*)	3	0	3	3
Boats.	(*)	(*)	(*)	(*)	(*)	0	0	0	13
Total.									103
Total.									931

Boats transferred to status of light mine layers.

Boats by purchase or transfer.

Boats transferred from some classified status.

Boats not organized in 1916.

NAVY DEPARTMENT.
Washington, March 22, 1922.

MY DEAR MR. KELLEY: In response to your personal request, I take pleasure in forwarding herewith a statement showing the civilian personnel at the various shore activities under the Naval Establishment as of date January 31, 1922.

Sincerely yours,

T. ROOSEVELT.
Assistant Secretary of the Navy.

HON. PATRICK H. KELLEY,
Appropriations Committee, House of Representatives.

Naval Establishment.	Technical.	Drafting.	Clerical.	Messenger.	Police.	Superintendents and shop employees.	Planning and estimating group.	Schedule of wages (laborers).	Schedule of wages (helpers) (apprentices).	Schedule of wages (group III artisans).	Miscellaneous.	Clerical, drafting, technical, etc.	Laborers; mechanics; Groups I, II, and III; planning and estimating group; superintendents and shop employees; and miscellaneous.
Navy yards:													
Portsmouth, N. H.	5	70	194	9	5	88	14	134	602	1,050	8	283	1,595
Boston, Mass.	22	57	323	28	55	114	23	431	512	1,275	5	485	2,360
Brooklyn, N. Y.	46	153	439	27	61	173	31	464	983	2,284	2	726	3,895
Philadelphia, Pa.	40	105	456	24	46	177	35	528	1,160	2,074	21	671	3,595
Washington, D. C.	72	158	428	44	2	268	56	582	1,075	3,408	16	704	5,409
Norfolk, Va.	33	89	360	24	52	123	3	546	1,580	1,338	1	558	2,605
Charleston, S. C.	19	13	135	16	13	49	9	231	213	441	1	190	2,644
Mare Island, Calif.	33	78	432	36	52	226	41	531	1,244	2,284	1	531	4,226
Puget Sound, Wash.	29	68	261	34	10	143	.....	292	1,926	1,512	4	402	2,877
Naval stations:													
Newport, R. I.	3	1	32	3	.....	5	.....	24	18	39	1	43	85
Key West, Fla.	5	1	50	0	4	5	.....	57	94	47	.....	56	203
New Orleans, La.	5	1	9	1	2	2	.....	.....	.....	.....	55	10	57
St. Thomas, V. I.	.....	.....	16	.....	.....	21	.....	94	117	123	10	16	365
Guantanamo Bay, Cuba.	.....	.....	88	9	.....	43	3	360	245	498	1	149	1,150
Pearl Harbor, Hawaii.	23	20	129	19	4	81	.....	430	192	876	.....	176	1,028
Orange, Philippine Islands.	.....	28	194	30	10	159	.....	887	92	878	.....	265	1,595
Cavite, Philippine Islands.	.....	24	194	30	7	2	.....	667	11	22	.....	2	1,103
Tutunila, Samoa.	.....	.....	29	.....	.....	31	.....	419	47	103	95	32	755
Guam.	.....	3	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1 Included in Naval Training Station, Newport, R. I.

NAVY DEPARTMENT APPROPRIATION BILL, 1923.

1017

Location	5	12	3	63	80
Port Mifflin, Philadelphia, Pa.	10	11	20	83	123
Portsmouth, Va.	8	10	38	88	145
Charleston, S. C.	1	2	2	5	8
Maui Island, Calif.	4	60	25	96	189
Puget Sound, Wash.	3	6	27	30	65
Kaibua Island, Pearl Harbor, Hawaii	3	15	7	13	37
Olongapo, P. I.	5	22	6	44	76
Naval magazines:					
Fort Lafayette, N. Y.	1			8	8
Bellevue, D. C.		14	1	19	35
Naval supply depots:					
South Brooklyn, N. Y.	376	404	41	280	819
Hampton Roads, Va.					
Naval purchasing offices:					
Newport, R. I.					
New York, N. Y.	5				0
San Francisco, Calif.	34	2			35
Naval fuel depots:	13				13
Melville, R. I.	8	10	5	31	48
Bayonne, N. J.					
Tiburon, Calif.	2	8	6	26	42
Naval ordnance plants:					
Baldwin, L. I.	7		3	51	73
South Charleston, W. Va.	19	281	439	986	1,722
Naval medical supply depots:					
Brooklyn, N. Y.	41	1		16	20
Marine Island, Calif.	1	4		3	8
Canacao, P. I.					3
Naval hospitals:					
Portsmouth, N. H.	2				30
Chelsea, Mass.	10	21	4	31	103
Newport, R. I.	4	3	4	14	49
Brooklyn, N. Y.	7	42	2	51	95
League Island, Pa.	7			36	124
Annapolis, Md.	5	12	1	15	55
Washington, D. C.	9	11	3	27	87
Norfolk, Va.	13	24	5	40	138
Charleston, S. C.	2	8		19	80
Parris Island, S. C.		3		5	15
Pensacola, Fla.		8		7	20
Key West, Fla.	1	4		11	1
Great Lakes, Ill.	6	2	4	47	10
Fort Lyon, Colo.		20			68
San Diego, Calif.	8			11	30

* Included in naval operating base.
 * Included in First Naval District.

*Included in naval operating base.
*Included in First Naval District.

Civilian force discontinued December, 1921.

Included in navy supply depot, South Brooklyn, N. Y.

TABLE 9.—Recapitulation of monthly reports of forces employed in the Naval Establishment as of date January 31, 1922—Continued.

Naval Establishment.	Tech- nical.	Drafting.	Clerical.	Museum- ger.	Police.	Superin- tendents shop em- ployees.	Planning and esti- mating group.	Schedule of wages, Group I (labor- ers).	Schedule of wages, Group II (helpers, apprenti- ces).	Schedule of wages, Group III (arti- sans).	Miscella- neous.	Total.	
												Clerical, drafting, tech- nical, etc.	Laborers; mechani- cal; Groups I, II, and III, plan- ning and esti- mating group. superin- tendents shop em- ployees; and mis- cella- neous.
Naval hospitals—Continued.													
Mare Island, Calif.			14		1	1		11	3	32	51	16	98
Puget Sound, Wash.	1		2			1		7		15	12	2	33
Pearl Harbor, T. H.								18		8	10		37
Canacao, F. I.											57		57
Naval War College, Newport, R. I.			16	3		1		1	6	2		27	10
Naval training camp, Pelham Bay, N. Y.	5	3	1		4							5	0
Marine basin, Brooklyn, N. Y.													
Naval aircraft factory, navy yard, Phila- delphia, Pa.	23	69	152	4	23	30	9	124	417	494		270	1,083
Naval Home, Philadelphia, Pa.			7			6		15	7	8		9	61
Naval Academy, Annapolis, Md.	36	5	240	4	52	36		314	101	362	26	337	813
Naval Academy, Washington, D. C.	33	4	62			40		259	340	351		99	990
Naval experimental and research labora- tory, Beltsville, D. C.	2	8			2			6		1		7	7
Naval operating base, Hampton Roads, Va.	4	2	230	11	7	37		432	49	294		10	1
Navy mine depot, Yorktown, Va.	3	1	14			2		115	12	50	3	240	905
Medium production plant, Fort Worth, Tex.		1	4		2			6	7	5		7	11
Naval district, San Diego, Calif. (including Naval district office and those based thereunder under communication offices):			13			1		32		16		13	56
Naval district, Boston, Mass. (including those based thereunder under communication offices):			47					7	4	13		47	24

[illegible]

No civilian employees.

PERSONNEL OF THE NAVY.

STATEMENT OF HON. W. S. VARE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA.

Mr. KELLEY. Mr. Vare, a Member of the House from Pennsylvania, would like to make a statement to the committee, and if he is ready we will be glad to have him make it at this time.

Mr. VARE. Mr. Chairman, I want to discuss, with your permission, the feature of the present bill in connection with the personnel of the Navy. I am exceedingly interested, first, to see that the Navy of the country is of adequate size to meet all the requirements as agreed upon by the recent Disarmament Conference. I do not know whether the committee has come to any conclusion or whether they have passed that feature of the bill, but the Public Ledger, of Philadelphia, this morning printed quite a prominent article, using the figure 65,000 as the number which the committee were inclined to believe to be adequate. Of course, I do not know whether those figures are really correct or not. I do want to submit to the committee the information that I have, which maybe has already been submitted, but I made some inquiries from responsible naval officers, who tell me that if this program is to be adequately carried out that, in their opinion, the number should be 120,000. The Secretary of the Navy, having in mind the policy of the committee to economize, places the figures at 90,000 men and 6,000 apprentices. Other high officials having had intimate relations with the Disarmament Conference, have expressed their views that 80,000 men and 6,000 apprentices would be the least numbers that would be reasonably adequate to man the ships.

I am frank to admit that I am interested from a two-fold standpoint. First, I want to see the policies of the Disarmament Conference carried out; and, secondly, I want to see the efficiency of the Navy maintained. Having in mind the city of Philadelphia, where I live, the former Secretary of the Navy told me quite frequently that he regarded the Philadelphia Navy Yard as the equal, if not the superior, of all the navy yards of the country from the standpoint of economy and efficiency; and I think the records of the Navy Department, having been kept in line with that thought, will show that the availability and the results obtained from the Philadelphia Navy Yard during the war were possibly more advantageous than those obtained from the navy yards of many other parts of the country.

I realize the importance of the economical policy which the Appropriations Committee is endeavoring to and have very successfully carried out. Sometimes, however, in our desire for economy we are very apt to lean backward if we become too enthusiastic on our subject; and it seems to me that for the general standing of our country in its relations with the foreign countries which participated in the recent conference, under no circumstances should we lessen our importance, and that economy, practiced to a greater extent than that which would carry out the policies of the recent conference, to say the least, would be possibly unwise and perhaps injurious to our

entry. I am hopeful that your subcommittee will recommend at least a personnel of 86,000 men.

Mr. KELLEY. Mr. Vare, we are much obliged to you.

Mr. VARE. I thank you, Mr. Chairman, for the opportunity to be present.

FUEL AND TRANSPORTATION.

Mr. KELLEY. The next is fuel and transportation. Let us take fuel first, or do they go together?

Captain LEUTZE. They go together.

Mr. KELLEY. I think I suggested, Admiral, that in preparing the estimate for fuel and transportation it would be desirable that the fuel consumption be computed on so many thousand miles a year as may be appropriated for the various classes of vessels.

Admiral POTTER. Yes, sir.

Mr. KELLEY. You have done that?

Captain LEUTZE. Yes, sir; and also, in accordance with your suggestion, we have put in those first columns figures which show the early consumption while steaming, in port, and cruising 100 miles.

Mr. KELLEY. Before we take up the details you might make a general statement showing what your requirements will be.

Captain LEUTZE. The estimates for coal and fuel are for 440 vessels, as given to me by the Chief of Naval Operations. For most of the ships they are based on 16,200 miles for the year, but there are certain exceptions, such as oilers, which it was estimated would cruise 50,000 miles; ammunition ships, 50,000 miles; colliers, 50,000 miles; cargo vessels, 50,000 miles; transports, 75,000 miles; mine sweepers, 30,000 miles; auxiliary ships, radio, 30,000 miles; seagoing tugs, 12,000 miles; shore-base submarines, 9,600 miles; reserve destroyers, 12,000 miles. The number of miles was given to me by the Chief of Operations.

REVISED ESTIMATE FOR APPROPRIATION "FUEL AND TRANSPORTATION, 1923."

The following revised estimate of funds required under the appropriation "fuel and transportation, 1923" is submitted:

Coal (376,906 tons at \$8.849 per ton)-----	\$3,335,241.19
Fuel oil (5,524,456 barrels at \$2.163 per barrel)-----	11,949,398.00
Gasoline (3,289,500 gallons at \$0.24 per gallon)-----	789,480.00
Maintenance of fuel plants-----	876,095.64
Used fuel oil and coal storages-----	92,693.68
Water-----	130,065.23
Electric current-----	30,564.73
Postage-----	163,047.34
Freight-----	13,156.00
Hire-----	26,312.00
Miscellaneous-----	20,000.00
Total-----	17,426,053.81

The above estimate is based on the number of vessels to be kept in commission during the fiscal year 1923, as shown on the list furnished by the Chief of Naval Operations. This list shows a total of 443 vessels of all types, of which 440 burn coal or fuel oil and 3 gasoline as fuel.

The estimate for coal and fuel oil for the 440 vessels above mentioned is based on vessels cruising 16,200 miles during the year, with the following exceptions: 7 oilers will cruise 50,000 miles; 2 ammunition ships will cruise 50,000

miles; 2 colliers will cruise 50,000 miles; 5 cargo vessels will cruise 50,000 miles; 3 transports will cruise 75,000 miles; 10 mine sweepers will cruise 30,000 miles; 1 auxiliary ship will cruise 30,000 miles; 14 seagoing tugs will cruise 12,000 miles; 5 shore-based submarines will cruise 9,600 miles; 3 reserve destroyers will cruise 12,000 miles.

Ammunition lighters, fuel-oil barges, freight lighters, ferryboats and launches, water barges, and miscellaneous craft are not shown at any particular cruising distance, as vessels of these types do not operate on fixed schedules and the quantities are based on past performances. Receiving ships will do no cruising, and port consumption only is shown for these vessels.

Mr. KELLEY. Are the 440 vessels which you have mentioned the total of the vessels indicated on this chart?

Captain LEUTZE. Yes, sir; on the big sheet. That which you have in front of you is a summary sheet, and the details, showing the names of each ship, are on the attached sheets.

Mr. KELLEY. It does not add to anything like that.

Captain LEUTZE. I think you will find the difference on the last sheet of the statement which shows the district shore-activities craft.

Mr. KELLEY. District vessels?

Captain LEUTZE. District shore-activities craft.

Mr. KELLEY. We were not to put in any district vessels; just the ships to be kept in commission; and the district expense we decided was all the expense of the shore establishment.

Captain LEUTZE. The last sheet shows 14 seagoing tugs that are assigned to the districts, 42 harbor tugs, 5 shore-base submarines, 9 receiving ships, 4 ammunition lighters, self-propelled, 19 fuel-oil barges, 11 freight lighters, 23 ferryboats, 4 self-propelled water barges, and 5 miscellaneous craft.

Mr. KELLEY. That makes the other 100, and, added to the first list, would make the 400 you spoke of?

Captain LEUTZE. Yes, sir; the 440.

Mr. KELLEY. The last list were those that were properly chargeable to shore activities?

Captain LEUTZE. Yes, sir.

Secretary DENBY. Then there is the fuel.

Mr. KELLEY. You have to have fuel out of this appropriation.

Secretary DENBY. Yes, sir.

Mr. KELLEY. Captain, before we go into the details, my understanding is that this estimate for fuel is based upon the list of vessels furnished you by the Navy Department based upon an enlisted force of 65,000 men?

Captain LEUTZE. That is correct.

Mr. KELLEY. The list and the Secretary's letter accompanying the list have already been printed in the record?

Captain LEUTZE. I am not sure about that.

Mr. KELLEY. The list I speak of, furnished by the Secretary, of ships with the letter accompanying it have been printed in the record. Now, Captain, proceed with your statement.

Captain LEUTZE. The total amount necessary, according to the estimate, is \$17,426,053.81, made up as follows: Coal, \$3,335,941.18; fuel oil, \$11,949,398; gasoline, \$789,480; maintenance of fuel plants, \$876,095.64; leased fuel oil and coal storage, \$92,693.68; water, \$130,065.23; ice, \$30,564.73; electric current, \$163,047.34; demurrage, \$13,156; tug hire, \$26,312, and miscellaneous, \$20,000, making a total of \$17,426,053.81.

Mr. KELLEY. Please give the total for the first three items—coal, fuel oil, and gasoline?

Captain LEUTZE. \$16,074,119.19.

Mr. KELLEY. How much does that leave for all the other purposes carried under this appropriation?

Captain LEUTZE. \$1,351,934.62.

COST OF COAL PER TON.

Mr. KELLEY. How did you arrive at your price per ton of coal?

Captain LEUTZE. We took the amount of fuel that was used by the Atlantic and Pacific Fleets during the first six months and applied at same percentage to the estimate for this year for the two fleets. Then we took the average price of what we expect to have to pay, based on current prices. It amounts for the fuel oil to \$2.163 per barrel and for the coal \$8.849 per ton.

Mr. KELLEY. It can not be that you will pay \$8.84 for coal?

Captain LEUTZE. The unit price for the coal is based on the present attract market price at tidewater points with differential added for transportation and various forms of delivery. That fuel includes, of course, the coal used in the Pacific.

Mr. KELLEY. The coal in the Pacific will be almost negligible under the new distribution of ships?

Captain LEUTZE. No, sir. It is 60,000 tons that we will use on the Pacific from stock already out there and 110,000 tons will have to be put out in addition. That makes 170,000 tons to be used out there. This includes the Asiatic coal.

Mr. KELLEY. The stock out there?

Captain LEUTZE. Some of it out there is worth as high as \$10.45, but the stock out there is paid for and in the storehouse, waiting to be issued to the ships.

Mr. KELLEY. Paid for out of the naval supply fund?

Captain LEUTZE. Yes, sir. The naval supply account fund.

Mr. KELLEY. And you will have to reimburse that fund?

Captain LEUTZE. Yes, sir.

COAL REQUIREMENTS.

Mr. KELLEY. How much is your total coal estimate?

Captain LEUTZE. Three hundred and seventy-six thousand nine hundred and six tons.

Mr. KELLEY. How does it happen that you will need one-half of the coal on the Pacific when you are going to have the oil burners out there and the coal burners on the Atlantic?

Captain LEUTZE. We simply took the rate at which it has been used the first six months.

Mr. KELLEY. That is no answer.

Admiral COONTZ. The answer is that with 65,000 men there will be few ships in the Atlantic.

Mr. KELLEY. Then you will not need any coal and we can cut the amount of coal very extensively?

Admiral COONTZ. No, sir. We have already allowed for the cut.

Mr. KELLEY. If you do not have the ships you will not need the coal?

Admiral COONTZ. The ships are there by name.

Mr. KELLEY. You will not use or operate them?

Admiral COONTZ. Yes, sir; we will operate them.

Mr. KELLEY. What do you mean?

Admiral COONTZ. I mean to say that when we cut down to the 65,000 basis, when that time comes, there will be a great many fewer ships left on the Atlantic coast, relatively.

Mr. KELLEY. How many tons are you asking for this year?

Captain LEUTZE. Three hundred and seventy-six thousand nine hundred and six tons.

Mr. KELLEY. You asked for 406,576 last year for all of the fleet. You are not asking for a very greatly reduced tonnage of coal for any reason that the Admiral has been talking about, have you? The fact is this reduction is based on taking out the old ships like the *Olympia*, is it not?

Captain LEUTZE. The Chief of Operations will have to answer that question.

Mr. KELLEY. How much did the *Olympia* burn last year?

Captain LEUTZE. I have not that figure.

Mr. KELLEY. Can you give us any idea as to how many tons of coal a ship like that would burn?

Captain LEUTZE. No, sir.

Admiral ROBISON. When I served on the *Olympia* she used to burn about 5,000 tons a year, but that was when she was in active operation on the Asiatic.

Mr. KELLEY. She was not very active last year?

Secretary DENBY. Yes, sir. She was actively cruising.

Mr. KELLEY. There is one thing, if you are going to lay up the ships you do not need the coal. You are asking for almost as much coal as last year?

Admiral COONTZ. We are going to run every ship on the list if the bill passes that way. These estimates were made by considering the needs of each ship that would be named in case the enlisted personnel is reduced to 65,000. They are right on the list, ship by ship, every one of them.

Mr. KELLEY. Twelve battleships of the first line that you have been talking about running, are they all oil burners?

Admiral COONTZ. No, sir. The *New York* and *Texas* are coal burners.

Mr. KELLEY. They are the only two coal-burning battleships that you will have in commission?

Admiral COONTZ. Yes, sir; outside of those in ordinary. Those two are on the Pacific.

Mr. KELLEY. Will those in ordinary have enough men on them so that they can cruise?

Admiral COONTZ. No, sir. I do not know whether you charge any coal to them except for the small amount for electric current!

Captain LEUTZE. Two-thirds of the ordinary port consumption.

Mr. KELLEY. How does it happen that you are estimating a dollar more per ton than you estimated last year?

Captain LEUTZE. Last year it did not include the handling charge or the freight charges, which are in this year. It was \$7.65 last year, but the freight and handling were thrown down under miscellaneous.

Mr. KELLEY. You do not mean to say that you paid \$7.65 for coal the mine?

Mr. REED. That was the water transportation.

Commander COBEY. The charge is \$2.24 f. o. b. mine. The freight to tidewater is \$2.80 and the rest is water freight to the Pacific.

Mr. KELLEY. You do not send it by freight. I thought you had colliers to take it out there. What do you want the colliers for?

Secretary DENBY. With the fleet.

Mr. KELLEY. You do not send the coal out to the Pacific by commercial vessels?

Admiral COONTZ. Yes, sir.

Secretary DENBY. The colliers accompany the fleet going to sea.

Mr. KELLEY. Where you have to handle the coal in that way it seems to me that the cheaper way would be to send the coal out there.

Admiral COONTZ. We plan to keep two colliers for next year in case the personnel is reduced to 65,000. You can work it out either way you want to.

Mr. KELLEY. \$4 a ton for getting from the Atlantic to Asia is interesting some, it seems to me. What is the charge out there?

Captain LEUTZE. To the Pacific about \$7 a ton, and to the Asiatic station \$5 a ton.

Mr. KELLEY. You have 60,000 tons out there?

Captain LEUTZE. One hundred and ten thousand tons more will be sent out—95,000 tons to the Pacific coast and 15,000 tons to the Asiatic station.

Mr. KELLEY. Now, Captain, the bulk of the coal goes from Hampton Roads to the west coast?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. How about the coal that is used in the Atlantic?

Commander COBEY. The average freight rate is \$2.54.

Mr. KELLEY. Why do you not have the ships go to Hampton Roads and get the coal instead of shipping it around? I do not like the outlook of this thing some way. Eight dollars and eighty-three cents, a dollar higher than last year, charging \$2 and some odd cents for water transportation from Hampton Roads when we have the ships which can go there and get the coal?

Captain LEUTZE. The shore activity craft could not go.

Mr. KELLEY. You could distribute a little of your shore activities for this coal for the fleet. The shore activities get the coal somewhere else?

Captain LEUTZE. That is all included in this estimate for coal for the next year; we had to put that in.

Mr. KELLEY. What do you pay at the mine?

Commander COBEY. \$2.24 West Virginia and \$3.57 Pennsylvania. The ship Pennsylvania coal to the New York and Philadelphia wharves.

Mr. KELLEY. How much of that coal have you estimated for the battleships in ordinary?

Captain LEUTZE. Thirty-six thousand six hundred and ninety-six tons.

Mr. KELLEY. Six thousand tons of coal apiece?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. And what for the two in commission on the Pacific?

Captain LEUTZE. Thirty-four thousand and forty-five tons.

Mr. KELLEY. Seventeen thousand tons apiece?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. Where is the rest of this coal? Thirty-six thousand tons for battleships in ordinary, and 110,000 tons for China makes 146,000 tons.

Captain LEUTZE. Forty-six thousand five hundred and eleven tons for the patrol vessels—gunboats.

Mr. KELLEY. They are over in China; that is a part of the China outfit.

Admiral COONTZ. They are scattered pretty well. Those 10 are in China?

Captain LEUTZE. Yes, sir. Nine thousand one hundred and seventy-three tons for the other patrol vessels; destroyer tenders, 10,023 tons.

Mr. KELLEY. The six battleships, how much?

Captain LEUTZE. The six battleships in ordinary, 36,696 tons.

Mr. KELLEY. What else do you have in the Atlantic?

Captain LEUTZE. We have not got it split by oceans.

Mr. KELLEY. How can you tell how much the fleet will be unless—

Captain LEUTZE (interposing). We took the issues of coal for the first six months of 1922, and we prorated those issues down to the figure called for by this estimate.

Mr. KELLEY. You have not figured this out on the basis of the table at all?

Captain LEUTZE. Yes, sir; absolutely.

Mr. KELLEY. How could you without knowing where the ships were or where they would be next year? How do you know the average will be \$8.86 per ton without knowing where the vessels will be located?

Captain LEUTZE. We used the amount of coal that was used during the past six months at the present location of the ships.

Mr. KELLEY. You are basing it upon the experience of the past, when the ships were located in different places and when you had entirely different ships from what you will have next year. You did not base the estimate upon this table at all.

Captain LEUTZE. I beg your pardon; we did base it on this table. We can not say that the ships will be in any one locality for a year.

Mr. KELLEY. How do you average the coal, then?

Captain LEUTZE. It is based upon past experience.

Mr. KELLEY. The past experience of what?

Captain LEUTZE. Based on where the ships were located.

Mr. KELLEY. Last year?

Commander LEUTZE. No, sir; this year, or during the first six months of 1922.

Mr. KELLEY. Some of those ships on that list were in the Atlantic and now they will be in the Pacific.

Admiral COONTZ. The two battleships burning coal in the Pacific will stay there; the outfit in China will stay there, except two, if we can get them home, and the special-service squadron will cruise just as at present. The six ships in ordinary are in the Atlantic, and the other small craft burning coal will remain where they are in the various island possessions. I think it can be safely said that in the next 12 months there will be no changes as to where these ships will

located. If we carried any of them from the Atlantic to the Pacific, it would add greatly to the cost, and the tendency would be to keep them where they are rather than spend more money.

Mr. KELLEY. If these six were in commission in the way they were last year, you would require 102,000 tons for them alone—is that right?

Captain LEUTZE. About 102,000 tons.

Mr. KELLEY. That would make a total consumption of 478,906 tons, and you have only 406,000 tons this year.

Captain LEUTZE. The 406,000 tons for last year was based on steaming 1,000 miles per month, and this figure is based on steaming 350 miles per month.

Mr. KELLEY. I am trying to find out how you get at the \$8.86 per ton, and you have not helped me much. Do you know, Mr. Reed?

Mr. REED. Yes, sir; I understand his statement. It was not definitely possible for the Chief of Naval Operations to say that this ship or another ship would next year serve in any particular ocean, that in arriving at an equitable figure we took our consumption of coal for the first six months of this year. We have just received actual reports of the actual consumption, showing us how many tons of coal have been consumed by all this fleet during the first six months, and that was split up by oceans, allowing so much for the Atlantic, so much for the Pacific, so much for the Asiatic station, and so much for other points. We had to assume, and it seemed proper, that that distribution would represent the distribution of actual consumption during 1923, the difference, if anything, being against us, because if more coal burners in the Atlantic go out there, we would have a larger proportion of consumption in the Pacific.

ESTIMATED COST OF COAL AND OIL.

Mr. KELLEY. I understand the general statement; and now let us have the detailed figures showing how you arrived at this estimate of so much per ton at this place and so much per ton at the other place, and then striking an average.

Mr. REED. The transportation involved here is 184,232 tons, and the rail rate from the mine to Hampton Roads is \$2.80.

MEMORANDUM SHOWING HOW AVERAGE PRICE OF COAL AND OIL AND GASOLINE WAS OBTAINED.

Unit prices of \$8.849 per ton for coal, \$2.163 per barrel for fuel oil, and \$24 per gallon for gasoline, used in the estimate of funds required under the appropriation "Fuel and transportation, 1922," were arrived at, as follows:

COAL.

Purchase and stock:

44,508.60 tons used at Pacific coast points from stocks carried in N. S. A. F., at \$8.....	\$356, 068. 80
15,060.16 tons used at Cavite from stocks carried in N. S. A. F., at \$10.45.....	157, 378. 68
284,624.79 tons purchased f. o. b. West Virginia mines, at \$2.24.....	637, 559. 53
32,712.20 tons purchased f. o. b. Pennsylvania mines, at \$3.57.....	116, 782. 55

Transportation—rail and water:

184,231.80 tons by railroad to Hampton Roads for shipment, at \$2.80	\$515,849.92
100,389.99 tons by railroad to Hampton Roads for bunkers, at \$2.80	291,091.97
32,677.20 tons by railroad from mines to ports on Atlantic coast, at \$3.51	114,696.97
73,242 tons by water Hampton Roads to Atlantic coast ports, at \$2.54	186,034.68
95,778 tons by water Hampton Roads to Pacific coast ports, at \$7	670,446.00
15,212.80 tons by water Hampton Roads to Asiatic stations, at \$15	228,177.00
284,623.79 tons trimming charges at Hampton Roads, at \$0.25 per ton	71,155.94

Total 3,335,241.19

376,906 tons coal—\$3,335,241.19—\$8.849 per ton.

FUEL OIL.

Point of delivery.	Unit price per barrel bulk.	Quantity.	Total.
East coast:			
Portsmouth, N. H.	\$2.90	29,700	\$83,148.00
Boston, Mass.	2.80	74,230	207,844.00
Melville, R. I.	2.76	163,330	452,990.80
New London, Conn.	2.75	14,850	40,937.50
Philadelphia, Pa.	2.65	103,950	275,467.50
New York, N. Y.	2.63	222,730	587,859.90
Guantanamo, Cuba.	2.56	29,700	76,032.00
Charleston, S. C.	2.55	89,100	227,205.00
Norfolk, Va.	2.60	163,350	424,710.00
Canal Zone	2.70	29,700	80,190.00
Gulf ports.	2.25	1,485,010	3,415,222.50
At average cost of	2.4411	2,405,710	5,872,732.40
Add differential per barrel for other forms and points of delivery (average of increase over basic prices for deliveries during 11-month period).	.17		408,973.70
Total	2.6111		6,281,706.10
West coast:			
San Francisco, Calif.	1.50	534,600	\$801,900.00
San Pedro, Calif.	1.50	1,485,000	2,227,500.00
Pearl Harbor, T. H.	2.15	356,646	768,788.70
Seattle, Wash.	1.89	267,300	506,997.00
San Diego, Calif.	1.65	476,200	785,930.00
At average cost of	1.629	3,118,746	5,082,782.00
Add differential per barrel for other forms and points of delivery (average of increase over basic prices for deliveries during 11 months' period).	.187		583,368.50
Total	1.816	3,118,746	5,666,150.50

5,524,456 barrels ÷ \$11,949,365.68 = \$2.1629.

The average unit price per gallon for motor gasoline is arrived at as follows:

Prices at principal points under present contracts are—

East coast:

Boston, Mass.	\$0.205—\$0.25
New York, N. Y.	.195— .25
Baltimore, Md.	.195— .25
Norfolk, Va.	.195— .25
Key West, Fla.	.195— .24
Port Arthur, Tex.	.16— .15

West coast:

Puget Sound, Wash.	.23— .25
Mare Island, Calif.	.21— .22
Richmond, Calif.	.205— .23
San Francisco, Calif.	.21— .25
San Pedro, Calif.	.205— .25
San Diego, Calif.	.215— .24
Pearl Harbor, T. H.	.225— .33

The unit price of \$0.24 per gallon for motor gasoline is based on prices, as shown above, now being paid under contracts, for gasoline delivered in various forms, such as f. o. b. vessels at contractor's works, in supplier's barges, in tank cars, in tank wagons, in drums, and a limited quantity in cans and cases.

Mr. KELLEY. That added to the price at the mine would make how much at Hampton Roads?

Mr. REED. \$5.04 per ton at Hampton Roads. Then there are trimming charges of 25 cents per ton.

Mr. KELLEY. That would make \$5.29 per ton.

Mr. REED. For transportation to Pacific coast points the cost is \$7 per ton, and that would give you a cost there of \$12.29 per ton.

Mr. KELLEY. Do you figure on taking around there the whole quantity of 170,000 tons?

Mr. REED. No, sir; only a part of it. We figure on taking to the Pacific coast 95,778 tons by water at a cost of \$7 per ton, and 15,213 tons to the Asiatic station at a cost of \$15 per ton for transportation. That would be in addition to the \$5.29 per ton at Hampton Roads.

COST OF JAPANESE COAL.

Mr. KELLEY. At what price could you buy coal in Asia if you bought it there commercially?

Mr. REED. Japanese coal is procurable at about \$9.90 per ton at the present time, but the price fluctuates greatly.

Mr. KELLEY. And you could take coal out there at a cost of how much?

Mr. REED. \$15 per ton, or total cost of \$20.29.

Mr. KELLEY. Is Japanese coal unusable?

Admiral POTTER. It is not fit to use on our ships.

Mr. REED. It requires about two-thirds of a ton of our coal to equal a ton of Japanese coal, I think.

Mr. KELLEY. You can not burn it in our ships?

Admiral POTTER. We never do except in an emergency. Admiral Robison would know about that.

Mr. KELLEY. Is Japanese coal unusable in our ships?

Admiral ROBISON. No, sir; we can use it.

Mr. KELLEY. Have you thought about the advisability of buying coal out there for our ships?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. What is your opinion in regard to it?

Admiral ROBISON. Japanese coal is usable. It is worth about two-thirds as much as ours, and sometimes it costs less than two-thirds as much as ours. The difference between the costs when it comes to burning it aboard our ships measured in dollars and cents is small enough to make it worth while to have the reserve supply of coal that we have there, and for our reserves we must have the best coal we can obtain.

Mr. KELLEY. You plan to use for the ships out there coal that you will buy commercially out there?

Admiral ROBISON. No, sir.

Mr. KELLEY. You will send it from here?

Admiral ROBISON. Yes, sir. The reason for that is that coal deteriorates in storage. The best coal after 10 years in storage is not worth anything.

Mr. KELLEY. You will not need to keep it so long. Have we a big supply of coal out there?

Admiral ROBISON. I am not familiar with those figures, but I think there is something over 50,000 tons out there. That coal must be used up at a certain rate, say, a quarter of it every year in order to keep it from excessive deterioration.

Mr. KELLEY. Do we use more than a quarter of 50,000 tons a year?

Admiral ROBISON. I do not know that figure. I would like to get that figure from somebody else.

Commander COBEY. We used 58,224 tons in the last 12 months ashore and afloat.

Mr. KELLEY. How much have you in storage?

Commander COBEY. Thirty-one thousand seven hundred and eighty-six tons on the 1st of February. As Admiral Robison has said, Japanese coal is rated two-thirds the value of Pocahontas coal in British thermal units. When the price of Japanese coal falls to a point where it is less than two-thirds the price of Pocahontas coal delivered there then Japanese coal is used.

Mr. KELLEY. It costs \$20 to deliver Pocahontas coal out there, and you can buy Japanese coal for \$9.90 per ton, and, as you say, there is a difference of only one-third in value. Therefore you would save by using Japanese coal.

Commander COBEY. They are now using Japanese coal.

Mr. KELLEY. That would represent a saving of—

Admiral ROBISON. \$5.15 per ton.

Commander COBEY. We are now using Japanese coal on account of the drop in the price.

Mr. KELLEY. You are asking us to appropriate money to take all this coal from Hampton Roads to China, at a cost of \$20 per ton, when you can buy Japanese coal of one-third less value in British thermal units at \$9.90 per ton. If you bought the coal there you could effect a saving of \$6 per ton.

Commander COBEY. We are burning Japanese coal out there now. However, the price of that coal fluctuates a great deal.

Mr. KELLEY. Was this item of \$20 per ton figured in this average of \$8.86?

Mr. REED. We figured on the transportation of 15,213 tons by commercial carrier at that rate.

Admiral ROBISON. If you used Japanese coal to any great extent I would like to ask for an increase in the engineering appropriation to correspond, because I will have to spend more money on the boilers. The Japanese coal is dirtier and it has sulphur in it. It does not pay to use it unless there is a considerable difference in the price. With a difference of \$6 per ton I would rather use Japanese coal.

Mr. KELLEY. We will take care of your end of it, Admiral.

Admiral ROBISON. This is something that affects my end of it very directly.

Mr. KELLEY. You gentlemen may have convinced yourselves about this, but you have not convinced me at all that you are paying anything like an average of \$8.86 per ton for coal, or that any such amount should be allowed. The cost is \$5.04 per ton at Hampton Roads, and the bulk of this coal is to be used in the Atlantic. In

asking 376,000 tons, and with two-thirds of the coal to be used in the Atlantic, and with the price of coal at Hampton Roads \$5.04 per ton, you figure an average of \$8.86 per ton. Now, you say that you can buy the coal that you want to use in the Orient at \$9.90 per ton, and it will cost \$20 per ton to carry it out there. By using Japanese coal at that price you will make a saving of \$6 per ton on the coal, although it may make a little difference in engineering.

Commander COBEY. Thirty-two thousand seven hundred and twelve tons of that coal is Pennsylvania coal, and the balance is Pocahontas coal. Fifteen thousand two hundred and thirteen tons are to be shipped to the Asiatic station.

Mr. KELLEY. What is the freight on the Pennsylvania coal?

Commander COBEY. That coal delivered at New York or Philadelphia is \$7.08 per ton as against \$5.29 per ton at Hampton Roads.

Mr. KELLEY. How much will there be of that Pennsylvania coal?

Commander COBEY. Thirty-two thousand seven hundred and twelve tons.

Mr. KELLEY. That is just a little.

Commander COBEY. Ninety-five thousand seven hundred and seventy-eight tons goes to Pacific points other than the Asiatic Station, and 15,213 tons goes to the Asiatic Station.

Mr. KELLEY. I thought you said you did not need to send any over there.

Commander COBEY. That depends upon the Japanese coal market, which fluctuates very violently. Up to January, it was higher than two-thirds the value of Pocahontas coal delivered.

Mr. KELLEY. Admiral Potter, what do you say about this matter? Have they convinced you?

Admiral POTTER. They convinced me. I did not know until just now that the engineering people agreed to the using of Japanese coal at all. I knew that they used it in cases of emergency, but I did not know that as a matter of principle the Bureau of Engineering allowed Japanese coal to be bought.

Mr. KELLEY. Would it not cost more to send it by freight than to use the extra collier that will not be used in the fleet? Could you not take all the coal you need around to the Pacific with that collier and store it out there?

Admiral POTTER. Manning it with a Navy crew?

Mr. KELLEY. Suppose you took the extra collier for that purpose, how much would it cost you to carry coal out there by that means? How much coal could you carry on that collier?

Commander COBEY. Ten thousand five hundred tons.

Mr. KELLEY. You would have to make 10 trips in order to get the amount of coal you would need, and you could not make that many trips in one year.

Admiral COONTZ. Whenever there is a collier available, we use her wherever it is possible to do so.

COAL SUPPLY ON PACIFIC COAST.

Mr. KELLEY. How much coal have you already stored on the Pacific coast?

Commander COBEY. We have of all kinds at all places, both Pacific and Atlantic, very close to a two-year supply.

Mr. KELLEY. How much do you want on the Pacific?

Commander COBEY. That includes coal used by the power plants. They use much more at Cavite than they use afloat. That includes the shore consumption.

Mr. KELLEY. You do not use the same kind of coal for the power plants, do you?

Commander COBEY. We do when the price justifies it. When the price is falling, as it is in the case of the Japanese coal, we use that. We are using Japanese coal for the power plant at Cavite.

Mr. KELLEY. At what point do you have coal stored on the Pacific?

Commander COBEY. At San Diego, Tiberon, and Puget Sound.

Mr. KELLEY. How much do you have stored at each place?

Commander COBEY. At San Diego, 43,299 tons; at Tiberon, 107,910 tons; and at Puget Sound, 30,755 tons.

Mr. KELLEY. Why do you want to stock up further on coal out there when you have a two-year supply on hand?

Admiral COONTZ. We must have a coal supply.

Mr. KELLEY. The world will not come to an end, and there will be a supply for next year. You have a two-year supply on hand now, and why should you keep filling the bunkers?

Admiral COONTZ. For the safety of the United States, and because every authority on the subject wants it kept there.

Mr. KELLEY. A two-year supply?

Admiral COONTZ. Yes, sir. That does not affect what appears in naval supply account fund that I can see.

Mr. KELLEY. We would save this freight.

Admiral COONTZ. It certainly would save freight this year, but you would be cutting the reserve down to nothing.

Commander COBEY. That is based on the fleet that is expected to be maintained next year.

Secretary DENBY. What has been the custom in the past?

Admiral COONTZ. The custom ever since we have had any war plans has been to gradually but surely create reserve supplies of fuel, and particularly in the Pacific, and we are slowly building up to what we should have out there, having in view that if anything happened that would prevent us from taking any coal out there we would have a supply available.

Mr. KELLEY. How much coal are we going to deliver out there between now and the 1st of July?

Commander COBEY. None.

Mr. KELLEY. There is no contract in existence for the present year?

Commander COBEY. No, sir. There is a 15-month supply on the Pacific. The two-year supply includes a large storage down at Hampton Roads.

Mr. KELLEY. A two-year supply for what?

Commander COBEY. For the vessels that we expect to have in commission next year.

Mr. KELLEY. For the vessels on this list?

Commander COBEY. Yes, sir.

Secretary DENBY. I would like to make one point clear: I do not see what benefit the appropriation would gain by destroying the two years' supply.

Mr. KELLEY. If we have that supply of coal out there, we do not need to ship any more around.

Secretary DENBY. We would have to pay it back.

Mr. KELLEY. I am trying to ascertain whether or not you want to build up any supply in addition to what you are using out there, in the way of a further reserve.

Admiral COONTZ. This does not account for any reserve next year.

Commander COBEY. This contemplates cutting down the reserves, and if the coal should be consumed in anything like the quantity it was on this coast at the time of the World War, we would not have more than a four months' supply there.

Mr. KELLEY. On this coast during the war we had great numbers of vessels of every description crossing the Atlantic. They were crossing the Atlantic by the score.

Commander COBEY. Based upon the consumption during the World War, we would have only about a four months' supply on the Pacific.

Secretary DENBY. Is this for the operation of the fleet only, or is it for replenishing the naval stores accounts, or is it creating a contingent reserve? If it is to operate the fleet and the Naval Establishment out there alone, then one year's supply would be needed, but if it is to operate the fleet and Naval Establishment as a reserve, then more would be needed.

Commander COBEY. It is the latter.

Secretary DENBY. Then, I think you could drop the reserve for one year.

Admiral COONTZ. No, sir; we could not.

Colonel ROOSEVELT. I do not think the commander understood the question. Commander, the coal we are asking at this time does not supplement our reserve, does it, but it simply lets it remain in statu quo?

Commander COBEY. It reduces it some.

Secretary DENBY. That makes a difference, if it is not to increase. I understood you to say that it would increase it.

Commander COBEY. It will reduce it about 60,000 tons. We contemplate using the reserve to the extent of 60,000 tons. That is simply a reserve under the control of the department.

ESTIMATED COST OF COAL.

Mr. KELLEY. What is the price of coal at commercial plants at San Diego and San Francisco, or what could you buy coal delivered to the coast for?

Commander COBEY. At this time it is exactly the same price we have. The commercial price at the mines to-day varies from \$1.68 to \$2.24. The price delivered varies according to the kind of bottom that can be gotten. If a vessel is going out there light and takes the coal as ballast, the rate may be as low as \$4.50.

Mr. KELLEY. When we gave authority to readjust the coal price last year, at what price did you inventory the coal on the Pacific?

Commander COBEY. On the west coast it was inventoried down to \$8 per ton.

Mr. KELLEY. Then, why do you want us to give you \$12 per ton?

Captain LEUTZE. We are asking \$8.849 per ton as an average. It is \$8 on the Pacific coast and \$10.45 for the Asiatic Station.

Mr. KELLEY. You inventoried this coal at those points on the west coast at what?

Captain LEUTZE. \$8 per ton, and at Cavite at \$10.45 per ton.

Mr. KELLEY. So that for all the coal you have on the Pacific coast you settled with the Navy on a basis of \$8 per ton, and on the basis of \$10 per ton for the coal at Cavite?

Captain LEUTZE. Yes, sir: \$8 for Pacific coast and \$10.45 for Asiatic.

Mr. KELLEY. You are still asking for an average cost of \$8.86 per ton?

Commander COBEY. \$8.849 per ton. That is because much of that coal went out on naval colliers, and we did not have to pay out of our appropriation for the cost of moving it.

Mr. KELLEY. With all the coal you will use for the coming year costing \$8 per ton on the Pacific coast and only \$10 per ton at Cavite, and with two-thirds of the coal you are figuring on to be used at Hampton Roads, you still figure on an average of \$8.86 per ton?

Colonel ROOSEVELT. You say that two-thirds of the coal will be used at Hampton Roads?

Mr. KELLEY. I am taking their figures.

Colonel ROOSEVELT. It is not used at Hampton Roads, but we have to rehandle it from Hampton Roads.

Mr. KELLEY. Your ships can take care of that. They can come up to the docks at Hampton Roads and get coal occasionally as they need it.

Secretary DENBY. They will not be able to operate.

Mr. KELLEY. Then you will not need any coal at all. I think I have enough information about the coal.

Admiral COONTZ. I think these people can show you that in a few sentences, because it is an open and shut proposition.

Mr. KELLEY. Here is what they have said: You are going to have to use some 110,000 tons of coal on the Pacific. Now, that coal is there; it has already been put there and it is held in the naval supply account: it was scaled down by authority of law from the price it cost to put it there to \$8 a ton, and you are going to pay \$8 a ton for it when you reimburse that fund. Now, that is the big end of your freight proposition, in addition to the cost of the coal from Hampton Roads, and it goes without saying, if that is true, that the coal you use in the Atlantic would not bring the average of the freight up so that the average of all your coal will be \$8.86 a ton.

Admiral COONTZ. If I understand it correctly, and what they have told me is true, I utterly disagree with you.

Mr. KELLEY. Well, you state it.

Admiral COONTZ. Well, I will state that if we use 100 tons in the Atlantic at such-and-such a price and 100 tons—

Mr. KELLEY (interposing). Hold on. At what price? Because that is what we are figuring on.

Admiral COONTZ. That is \$5.29 at Hampton Roads. And if you use 100 tons in the Pacific—

Mr. KELLEY (interposing). That will average \$8.86, will it?

Admiral COONTZ. And use 100 tons on the Asiatic Station, and if we take the total number of tons and total cost, we will get the average absolutely, as shown by the table.

Mr. KELLEY. Admiral, you are a good sailor but a poor mathematician.

Mr. REED. I would like to make the further statement that on the Pacific coast we will use approximately 140,000 tons, of which 45,000 will come from stock at the price of \$8 per ton.

Mr. KELLEY. Why do you not use it all?

Mr. REED. They will not permit the depletion of the reserves more than 45,000 tons.

Mr. KELLEY. Who will not permit it?

Mr. REED. The Secretary and Operations. And 95,000 tons must be sent out there for replacement.

Mr. KELLEY. You say you are figuring on sending 95,000 tons out there for replacement?

Mr. REED. Yes, sir.

Mr. KELLEY. Why did you not say so? You said you were sending 110,000 tons.

Captain LEUTZE. Ninety-five thousand tons to Pacific points and 15,000 tons to the Asiatic station, making 110,000 tons.

Mr. KELLEY. That is worse yet.

Captain LEUTZE. No, sir; because the Asiatic is a very much higher price.

Commander COBEY. I think I can clear the whole thing up. The figures are based roughly—

Mr. KELLEY (interposing). Very.

Commander COBEY (continuing). On the consumption of 170,000 tons of coal in the Pacific and on the Asiatic Station; of that amount it is estimated that we will deplete the reserve coal on the Asiatic Station by 15,000 tons and deplete the reserve on the Pacific coast 45,000 tons; that is a total of 60,000 tons and leaves 110,000 tons to be transported from the east coast; taking the shipments from the Panama Roads it gives us 110,000 tons to be transported out there of the 170,000 tons to be used, of which 95,000 tons are to be sent to Pacific coast points and 15,000 tons to Asiatic points. The coal going to the Pacific coast points will cost us \$12.29 a ton and the 15,000 tons to be sent to the Asiatic Station will cost us \$20.29 a ton. That gives the exact figures that Admiral Coontz spoke of.

Mr. KELLEY. If you buy the Japanese coal instead of buying it out of Asia at \$10 a ton, you will save \$6 a ton out there and make quite a difference in your averages; and if you should use a little more of your stock on the Pacific coast than you have calculated at a ton, that would make a still further difference.

Commander COBEY. Those two things are contingencies on which we can not safely calculate and for this reason: Take the Asiatic coal. Admiral Robison pointed out, it may not be of a quality which would be used in the boilers of our ships.

Mr. KELLEY. I take his word for that; he says it can.

Commander COBEY. Well, I think the admiral meant that it depends on the kind of Japanese coal.

Mr. KELLEY. No; he said that it can be used, and he is one of the officers who says what he means and strikes straight from the shoulder, and I like him. Go ahead.

Commander COBEY. I was going to say that he would probably want to try the coal first, although we know some of that coal can be used.

Mr. KELLEY. He would not say it could be used if he had not tried it.

Commander COBEY. Of course, it comes from different mines and it depends on the mines. Now, as to the question of the depletion of stocks. We have gone on the assumption that it was unsafe to deplete the stocks by a larger quantity than 60,000 tons; we are putting nothing into stock and taking out 60,000 tons of our war reserve; the use of Japanese coal is very problematical and the only safe way to figure is on sending coal from Hampton Roads in case the quality of Japanese coal is not satisfactory or in case the price is not satisfactory.

ESTIMATED COST OF COAL AT DIFFERENT POINTS.

Mr. KELLEY. Coming to the Atlantic, is there any way of handling this coal without charging \$3 a ton for getting it on board ship at Hampton Roads?

Commander COBEY. There is no other way of getting it to the fleet. We have estimated on one-seventh going in naval colliers, and that is all that can be sent.

Mr. KELLEY. I mean on the Atlantic coast.

Commander COBEY. That includes the Atlantic.

Mr. KELLEY. I did not mean the Pacific. I say, Is there any way of handling the two hundred thousand and some odd tons you are going to use on the Atlantic without adding \$3 a ton to the price at Hampton Roads?

Commander COBEY. No, sir; there are not sufficient colliers available.

Mr. REED. We did not add \$3 a ton to the coal used on the Atlantic. The average—

Mr. KELLEY (interposing). How much coal have you stored on the Atlantic?

Commander COBEY. We have adequate quantities stored.

Mr. KELLEY. That does not mean anything to me. I want tons.

Commander COBEY. There are two storages at Hampton Roads containing 278,000 tons.

Mr. KELLEY. That you can buy at how much a ton down there!

Commander COBEY. \$5.29.

Mr. KELLEY. Two hundred and seventy-eight thousand tons!

Commander COBEY. Yes, sir.

Mr. KELLEY. And you are figuring on replenishing that at \$8.86 a ton?

Colonel ROOSEVELT. No.

Mr. KELLEY. Yes; the average is \$8.86.

Admiral KOONTZ. That is the average.

Mr. KELLEY. That is what he wants; he wants a certain number of tons and that is the figure—\$8.86 for every ton.

Colonel ROOSEVELT. The costs differ at different places.

Mr. KELLEY. I know; but that is the average.

Commander COBEY. That is correct.

Mr. KELLEY. And you have inventoried that at \$5?

Commander COBEY. \$5.29.

Mr. KELLEY. Where else have you coal on the Atlantic?

Commander COBEY. The bulk of this coal is consumed away from Hampton Roads; a very little is consumed at Hampton Roads.

Mr. KELLEY. But it is stored there?

Commander COBEY. Yes, sir.

Mr. KELLEY. And at the point of storage it is \$5.04 at the present market?

Commander COBEY. \$5.29.

Mr. KELLEY. You add 25 cents for handling?

Commander COBEY. Yes, sir.

Mr. KELLEY. Now, where else have you coal stored on the Atlantic?

Commander COBEY. At Portsmouth there is none except what is required for current use—a one month's supply; at Boston there is not a month's supply; at Melville there are 21,503 tons. That is the first storage place, coming down the coast, where there is any considerable quantity stored.

Mr. KELLEY. At what price did you appraise that?

Commander COBEY. At just exactly what it cost us to get it in.

Mr. KELLEY. I know; but I want figures.

Commander COBEY. \$6.14 a ton.

Mr. KELLEY. Where is Melville—in Rhode Island?

Commander COBEY. Yes, sir.

Mr. KELLEY. \$6.14 delivered in Rhode Island?

Commander COBEY. Yes, sir. That is cheaper than it can be bought commercially there, but we send it up by water. At Constable Hook, which is in New York, there are 25,434 tons of emergency storage, and these are the only two storages until we get to Hampton Roads. At Philadelphia there is none in storage; at Key West there are just 541 tons, which is about a two months' supply of coal, depending on the number of ships that go in there. That is all that is stored on this coast, until we get to Guantanamo and Panama; at Panama we have 78,317 tons stored.

Mr. KELLEY. At how much did you appraise that?

Commander COBEY. \$8.29 a ton.

Mr. KELLEY. That is even less than your average?

Commander COBEY. Yes, sir; because the average includes the Pacific and the Asiatic.

Mr. KELLEY. How much at Guantanamo?

Commander COBEY. There are 18,039 tons at Guantanamo, and that is all on this coast.

Mr. KELLEY. How about your contracts for deliveries on this coast for the rest of the year?

Commander COBEY. We have no contracts extending past the 31st of March.

ESTIMATED COAL CONSUMPTION.

Mr. KELLEY. So you do not expect any coal to be delivered the rest of the year?

Commander COBEY. Yes, sir; we expect to extend those contracts, but that is dependent on the coal strike.

Mr. KELLEY. How much coal do you expect to have delivered at Hampton Roads and these other points the rest of the year out of our current appropriation?

Commander COBEY. Only such coal as is needed to bunker vessels.

Mr. KELLEY. That does not give me any information; I want tons.

Commander COBEY. Approximately 27,000 tons at Hampton Roads.

Mr. KELLEY. And any other place?

Commander COBEY. Yes, sir.

Mr. KELLEY. Where else?

Commander COBEY. Contracts are being extended to provide for no fixed quantity, but for such quantity as the Navy will require.

Mr. KELLEY. How much do you estimate that will be?

Commander COBEY. These must be estimates only.

Mr. KELLEY. Certainly.

Commander COBEY. At New York, for the remaining three months of this year, beginning April 1, there will probably be required about 4,000 tons; at Philadelphia and Boston it is very problematical, probably not over 2,000 tons at each place.

Mr. KELLEY. Most everything is at Hampton Roads.

Commander COBEY. Yes, sir.

Mr. KELLEY. I suppose you figure that Hampton Roads is your real base, your operating base on the Atlantic, do you not?

Commander COBEY. Yes, sir.

Mr. KELLEY. It is called that, is it not?

Commander COBEY. Yes, sir.

Mr. KELLEY. The ships put in there regularly.

Commander COBEY. That is where our greatest consumption of coal is.

Mr. KELLEY. And they go in and out from that place?

Commander COBEY. Yes, sir.

Mr. KELLEY. Almost exclusively?

Commander COBEY. Yes, sir; and it is by far the cheapest place to get coal.

Mr. KELLEY. Next year you expect to use coal on a much more lavish scale than you used coal this year?

Commander COBEY. No, sir.

Mr. KELLEY. You have that information, have you not?

Captain LEUTZE. The average number of miles steaming is 16,200, which is 1,350 miles a month, as estimated for the year 1923.

Mr. KELLEY. That is as against how much for the current year?

Captain LEUTZE. The estimate for 1922 was on the basis of steaming 2,000 miles per month and was changed by the committee instructions to 1,000 miles per month.

Mr. KELLEY. So you want to run up to 16,200 miles from 12,000 miles.

Captain LEUTZE. That is what I am instructed to do; yes, sir.

Mr. KELLEY. You were instructed to make these figures based upon a 33½ per cent greater use of coal for next year than you used the past year. Did you do that as to oil, too?

Captain LEUTZE. The oil was estimated for in the same manner as the coal.

Mr. KELLEY. So that these tons of coal you are asking for here are 33½ per cent greater than they would be if you steamed the same as you did this current year?

Captain LEUTZE. Not that much.

Mr. KELLEY. Well, you go from 12,000 miles up to 16,200 miles, 4,000 miles more, and that is one-third of 12.

Secretary DENBY. May I interrupt there and say that economies in coal have been going on at a frightful rate?

Mr. KELLEY. We are trying to get the amount of coal they are asking for next year.

Captain LEUTZE. Port consumption comes in there, and it would not be all for steaming.

ESTIMATE OF MILES OF STEAMING.

Mr. KELLEY. You are figuring on running all of these vessels 16,000 miles, whereas they ran only 12,000 miles this year.

Captain LEUTZE. Pardon me.

Mr. KELLEY. You did not say that?

Captain LEUTZE. No, sir; I said that was the corrected estimate for 1922, and I did not say anything about the miles they had run this year.

Mr. KELLEY. How many did they run?

Captain LEUTZE. I said that the estimate for 1922 was figured on the basis of 1,000 miles a month, or 12,000 miles a year.

Mr. KELLEY. Well, are they running more than that?

Captain LEUTZE. I can not answer that.

Admiral COONTZ. I can.

Mr. KELLEY. Well, all right.

Admiral COONTZ. The battleships in the first six months——

Mr. KELLEY (interposing). These are coal burners, and I am only talking about coal.

Admiral COONTZ. I can give that to you, but I just want to get into the record that the 14 battleships in 6 months averaged 7,963 miles.

Mr. KELLEY. You have not that many coal-burning battleships.

Admiral COONTZ. I can pull that out for you.

Mr. KELLEY. Don't put anything in that will confuse us, but if you can put in anything that will straighten us out, do it. I want to know whether it is true that you are increasing the steaming from an average of 1,000 miles a month up to 16,000 miles a year on your coal-burning ships.

Admiral COONTZ. No, sir.

Commander HILL. I can give you those figures now.

Mr. KELLEY. This gentleman says that is what he has done and you say it is not.

Captain LEUTZE. Not the coal burners; no, sir. I have talked about all the battleships. Six coal burners will be in port, and it is estimated that they will burn two-thirds of the port consumption, because they will be in ordinary for the full year. There are only two coal burners that are going to steam at the rate of 16,200 miles. I misunderstood your question, sir.

Mr. KELLEY. How about the other ships?

Captain LEUTZE. The other ships on this list are based on steaming 6,200 miles, with the exceptions I noted before.

Mr. KELLEY. For every ship that is on the list, except those battleships, you have put down coal enough for them to go 16,000 miles.

Admiral COONTZ. No, sir.

Mr. KELLEY. Have you not done that, Captain Leutze?

Captain LEUTZE. I have put it down—

Mr. KELLEY (interposing). Answer that, yes or no, so we will get the answer straight.

Captain LEUTZE. No.

Mr. KELLEY. What have you done?

Captain LEUTZE. I have included some of them as going 50,000 miles a year and some 75,000.

Mr. KELLEY. Coal burners?

Captain LEUTZE. Some of them are coal burners. The colliers are coal burners, and they are estimated to go 50,000 miles.

Mr. KELLEY. You were talking about battleships exclusively when you spoke of the 12,000 miles and 16,000 miles?

Captain LEUTZE. In that figure, yes.

Mr. KELLEY. What were your instructions as to other ships that burn coal?

Captain LEUTZE. I had no specific instructions about any burning coal, but general instructions as to all ships.

Mr. KELLEY. As to the amount of steaming they were going to do.

Captain LEUTZE. I was told to take all the ships and figure them at 16,200 miles with the exception of certain ones, which I mentioned just before lunch.

Mr. KELLEY. Which ones have you figured at 16,200 miles?

Captain LEUTZE. All the battleships, the light cruisers—

Mr. KELLEY (interposing). As you go along, give the average you have estimated for this year. I mean what they have steamed this year.

Captain LEUTZE. I have not the figures showing what they steamed this year, sir.

Mr. KELLEY. Do you not know how far the light cruisers went this year?

Captain LEUTZE. They have not been built.

Mr. KELLEY. Have you no idea on what the estimate is based?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. How far do you expect they will go next year?

Captain LEUTZE. One light cruiser is to be in commission the fall year and is to go 16,200 miles; the other two are to be in commission nine months and are to go at the rate of 16,200 miles per year, or 1,350 miles a month for the nine months.

Mr. KELLEY. They will go just as far in the nine months as the other one—if you get them—would go in 12.

Captain LEUTZE. No, sir; I said at the rate of 16,200 miles a year, or 1,350 miles per month for nine months.

Mr. KELLEY. What are the next ships you have there?

Captain LEUTZE. Well, there are three cruisers, the *Denver*, the *Galveston*, etc.

Mr. KELLEY. How far do you say they will go?

Captain LEUTZE. Sixteen thousand two hundred miles.

Colonel ROOSEVELT. The figures are here for the coal consumption of the battleships for six months, the first six months of this year; the figures are right here showing the amount of steaming they did and you can read them name by name.

Mr. KELLEY. Maybe we will get to them directly.

Colonel ROOSEVELT. It will give you accurately the amount they took for six months of this year.

Mr. KELLEY. We can probably shorten this a little bit, because I think in your statement this morning you covered it pretty well.

Captain LEUTZE. Yes; I read off a list of the ships that were expected from the 16,200 miles and gave the number of miles they were to steam this coming year.

Mr. KELLEY. I remember you said the colliers were to go 50,000 miles.

Captain LEUTZE. Yes, sir; cruise 50,000 miles.

Mr. KELLEY. They come into port and get some fuel, get the coal, then go back to the fleet, and that is why they go so far in a year.

Captain LEUTZE. Admiral Coontz will know about that.

Mr. KELLEY. Do you not know? You are an officer of considerable standing.

Captain LEUTZE. That is what colliers do as an ordinary thing, but I do not know how this figure of 50,000 was arrived at.

Mr. KELLEY. That is why the colliers go farther than battleships, is it not?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. They do not add anything to the freight, do they?

Captain LEUTZE. No, sir.

Mr. KELLEY. How many miles did those ships go during the first six months?

Colonel ROOSEVELT. The *Arkansas*, in five months, went 10,302 miles; the *Delaware*, in six months, went 8,000 miles; the *North Dakota* went 7,656 miles in six months; the *Florida*, 7,042 miles; the *Wyoming*, 9,825 miles; the *New Mexico*, 4,614 miles; the *New York*, 5,119 miles; the *Texas*, 4,181 miles; the *Oklahoma*, 13,508 miles; the *Arizona*, 12,626 miles; the *Nevada*, 12,069 miles; the *Mississippi*, 4,700 miles; the *Pennsylvania*, 10,074 miles; the *Idaho*, 5,282 miles; and the *Tennessee*, 6,926 miles, all of the latter in six months; and one, the *Arkansas*, in five months.

Mr. KELLEY. What were they doing the other days?

Colonel ROOSEVELT. These figures cover the first six months of the current year, and the average for the six months is 7,963 miles, or, roughly, 8,000 miles, and at the rate of 16,000 miles per year.

Admiral COONTZ. I think that the record of last year shows that we figured on steaming one day in three.

Mr. KELLEY. I remember about that day business, but it was not very satisfactory, because we did not know how many hours there were in the day.

Admiral COONTZ. And this figures on their steaming four and a half days a month on the average, which is pretty small, we think.

Mr. KELLEY. Would 10,000 miles a year be 100 miles every three days?

Captain LEUTZE. No, sir; 12,000 miles a year; 100 miles every three days would be 1,000 miles a month or 12,000 miles a year.

Mr. KELLEY. Then, 100 miles every three days and 30 days in the month would make 1,000 miles a month or 12,000 miles a year?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. You are getting better in your arithmetic.

Captain LEUTZE. I do not know about that; but that is what it figures.

Mr. KELLEY. Last year that is what you told us you based your estimate on.

Mr. REED. That is what the estimate on page 898 of the hearings were based upon.

Colonel ROOSEVELT. Mr. Chairman, we have been using 1916 as a comparison. Would it not be a good thing to go back and see at what rate we steamed our battleships in 1916?

Mr. KELLEY. Will you take the same costs, too?

Colonel ROOSEVELT. No; that would not do, and that is not fair, because the heating units would not be the same.

Mr. KELLEY. How far did you run in 1916?

Colonel ROOSEVELT. The average miles steamed by battleships and cruisers in commission—

Mr. KELLEY (interposing). Give us the same ships.

Colonel ROOSEVELT. Fifteen thousand eight hundred and fifty-five miles; that is the average.

Mr. KELLEY. About the same thing.

Colonel ROOSEVELT. Yes, sir; just about. Average miles steamed by destroyers, 15,386.

Mr. KELLEY. We have not gotten to the destroyers as yet. That is not far off from what you did before the war, what you are doing now, and what you want to do next year.

Colonel ROOSEVELT. It is pretty much of a muchness.

Mr. KELLEY. That helps us very much and clears it up very well. We have the other figures, so we can adjust your freight very nicely from Hampton Roads to the Atlantic and the Pacific, considering the reserves and the readjustment of prices which have already been made.

Colonel ROOSEVELT. Bearing in mind one thing, that we have no coal mines on the Pacific coast, and we can not afford to deplete the coal reserve on the Pacific coast for that reason, because the coal has to go overland or through the canal.

Mr. KELLEY. I understand that very well.

Secretary DENBY. And may I suggest another thing? That we are continually called upon for extra and unexpected voyages by these ships.

Mr. KELLEY. I would not respond. I would say I did not have the money.

Secretary DENBY. You can not help respecting such calls when Congress passes a resolution.

Mr. KELLEY. That is true, and we make you lots of trouble.

Secretary DENBY. We have to obey the orders of Congress, so I think you ought to add something for these unexpected demands. I can recite them to you in a half minute—totally unexpected calls which cost tens of thousands and hundreds of thousands of dollars.

Mr. KELLEY. This coming year I think Congress is going to be very careful not to make any demands on you.

Secretary DENBY. It is not only Congress; it is an unexpected demand from South America or a request from the State Department which we have to obey.

Mr. KELLEY. I know there are certain peace duties which must be performed.

Secretary DENBY. Not only peace duties but unexpected duties.

Mr. KELLEY. But you really do not need to run 16,000 miles a year in addition to those; you can take those in.

Secretary DENBY. I am serious about this, and I think it is very important to have in the record that we have allowed for steaming under a normal operating plan. We must have an operating plan; we must know reasonably well in advance what we are going to do with the fleet in the year, and if we have an operating plan that plan must not take in the unexpected calls that are made upon the Navy and to which it must respond as, for instance, the bringing home of the unknown dead, taking a potentate to Africa, sending destroyers on searches for vessels, or using the special-service squadron to send marines here and there. So I think there should be a margin of safety in the coal allowance to take care of all those things.

Mr. KELLEY. No doubt they are in these other figures.

Secretary DENBY. When we make an operating plan we try to live up to it and we do live up to it, but when we have these unexpected calls they have to be met, and then when we come to the end of the year and have a deficiency we meet much criticism, but certainly we can not avoid a deficiency if you do not give us any margin.

Mr. KELLEY. You must avoid a deficiency on this thing and there can not be any deficiency. We are going to give you a certain sum of money this year and you must not go beyond it.

Admiral COONTZ. Let me give you a concrete example. We want to get two ships home from abroad and put them out of commission, the *Albany* and the *New Orleans*, and it will cost \$44,000 to get them home.

Mr. KELLEY. But it is not an exact science, whether you run 16,000 miles, 15,000 miles, or 14,000 miles; with some ships you run 8,000 miles and others 10,000 miles, 12,000 miles, and 13,000 miles.

Admiral COONTZ. But when we lay out a plan for target practice and other maneuvers, and know what we have to start with, it is almost an exact science, except as to these side things, of which we have 20, 30, or 40, amounting to hundreds of thousands of dollars.

Mr. KELLEY. In making up your plan you should take into account these side things and allow yourselves a reasonable margin for them, and make your plans accordingly in time of peace.

Admiral ROBISON. The reserve fuel on the Pacific coast, particularly in coal, is already very much lower than it used to be.

Mr. KELLEY. Because we did not have any ships out there.

Admiral ROBISON. But we had an ocean there.

Mr. KELLEY. We did not have any ships and, of course, we did not need any coal, any fighting ships, until now.

Admiral ROBISON. There was very much more coal than now when the fleet went around.

Mr. KELLEY. President Roosevelt wanted to impress certain people and he knew how to do it.

COAL CONSUMPTION.

Admiral ROBISON. In Puget Sound and San Francisco there was very much more coal than we have. Since the introduction of oil there has been a very great reduction in the coal consumption. Our total fuel consumption in the Navy was greater 10 years ago than it is to-day.

Mr. KELLEY. Oh, Admiral, what do you mean by that?

Admiral ROBISON. It was greater in tons. The total fuel consumption to-day is less than it was then.

Mr. KELLEY. The whole fuel bill in 1916 was less than \$5,000,000.

Admiral ROBISON. I should like to invite your attention to the fact that we used over 1,000,000 tons in 1910, and the coal consumption in 1913 was 945,840 tons.

Mr. KELLEY. I do not care how many tons we used. The highest amount we ever appropriated for fuel prior to 1916 was \$5,000,000.

Admiral COONTZ. You can multiply the cost by three or four. Then there was the small size of the Navy.

Commander COREY. Our price in 1916 was \$1.18 to \$1.45 f. o. b. mine and \$2.58 to \$2.85 delivered at Hampton Roads; now it is \$5.29 delivered at Hampton Roads.

Mr. KELLEY. What was the average cost that year?

Commander COREY. The average cost?

Mr. KELLEY. For the coal that year?

Commander COREY. I have not that figure.

Mr. KELLEY. It will be very interesting for us to know. We will look that up ourselves. I am glad you mentioned it.

Mr. REED. You can not find it; that is not in the record.

Admiral POTTER. The cost of coal at Norfolk is not the price, unless delivered in collier or unless the ship is alongside at Hampton Roads.

Mr. KELLEY. What is the price the way you handle it right now in your storehouse at Hampton Roads?

Admiral POTTER. \$5.29.

Mr. KELLEY. There is no trouble about that.

Admiral POTTER. You seemed to be in doubt that the true average price was \$8.849.

Mr. KELLEY. I have no trouble about the price of coal at Hampton Roads—\$5.29 at the present moment in your storehouse.

Admiral POTTER. But I thought you were in doubt as to the true average price of the coal for the whole establishment during the ensuing year.

Mr. KELLEY. I think you are right.

Admiral COONTZ. \$8.849.

Mr. KELLEY. I have grave doubts about that.

USE OF JAPANESE COAL.

Secretary DENBY. I should like to ask whether it is the committee's desire that we use Japanese coal?

Mr. KELLEY. That is a matter of science. We can take the admiral's word. He said it is just as good, except two-thirds the value. What is the difference whether the coal is stored or whether you buy it in the market when you need it?

Admiral ROBISON. It has been used in small quantities. Sometimes they can get a collier.

Secretary DENBY. In case of trouble you could not get it, and in any event you can not rely on a foreign country for coal. That is something that the American people would not tolerate.

Mr. KELLEY. We have enough authority to scale this price down to \$8 on the coal on the Pacific.

Colonel ROOSEVELT. It is my earnest belief that the coal on the Pacific ought not to be scaled down further than it is contemplated in this.

Secretary DENBY. Then there is the fact that it causes deterioration to the ship. That is one thing. You want us to have the best; you do not want us to use inferior things. Second, buying coal from a foreign country, across the Pacific—personally I do not believe that is a good practice.

Mr. KELLEY. We buy lots of things of foreign countries.

Secretary DENBY. But not coal for war vessels.

Mr. KELLEY. There is absolutely no sense in carrying coal from Hampton Roads to China at \$20 a ton if you can save \$6 a ton, taking into consideration the difference in quality.

Admiral ROBISON. One of the major reasons against the use of Japanese coal on the ships is not only the deterioration in the machinery, but also the great decrease, amounting to one-third, in the radius of action. Increased frequency of refueling is necessary.

Mr. KELLEY. What do you mean by that?

Admiral ROBISON. If you fill a ship's bunkers with Japanese coal she can not do the work that can be done with American coal.

Mr. KELLEY. Why not buy the coal over there and put it in the bunkers?

Secretary DENBY. With American coal the ship can steam farther.

Admiral ROBISON. For certain purposes four times as many ships would be required as if American coal were used. It is a question of distance of the coal supply from the field of operation.

Mr. KELLEY. In ordinary times you can use a little inferior coal over there without carrying the coal so far.

Secretary DENBY. It is not economical; it is an absolute loss to use that coal.

Mr. KELLEY. You have not given it any consideration until to-day?

Secretary DENBY. I have heard enough here to-day so that I would not want to go before the American people and make the statement that we were going to use inferior coal that would require refueling the ship more frequently.

Mr. KELLEY. What kind of coal are you using?

Admiral ROBISON. Pocahontas for one.

Mr. KELLEY. Digging it out of the American soil makes no difference.

Secretary DENBY. It has been demonstrated that the Japanese coal is inferior.

Mr. KELLEY. Are we using any coal at all from any mines in the United States of as poor quality as the Japanese coal?

Admiral ROBISON. No; there is not any, except in Illinois. That is the coal you use in Detroit.

Mr. KELLEY. Are you using any Illinois coal?

Admiral ROBISON. On board ship?

Mr. KELLEY. Anywhere.

Admiral ROBISON. Yes, sir.

Mr. KELLEY. Where are you using it?

Admiral ROBISON. On the Great Lakes.

Mr. KELLEY. Where else?

Admiral ROBISON. Nowhere that I know of.

Mr. KELLEY. Where is the best coal?

Admiral ROBISON. The best coal comes from the Pocahontas region of West Virginia.

Mr. KELLEY. Do we not use Pennsylvania coal?

Admiral ROBISON. Yes, sir; some.

Mr. KELLEY. Is it the same kind of coal?

Admiral ROBISON. It is not identical. There is some variation in the heat units.

Mr. KELLEY. What are the British thermal units of Pocahontas coal?

Admiral ROBISON. Up to 15,200.

Mr. KELLEY. And of the Pennsylvania coal?

Admiral ROBISON. Up to 15,000.

Mr. KELLEY. And the Japanese coal?

Admiral ROBISON. It will vary—11,000 and sometimes 12,000, and sometimes 8,000 or 9,000; there is a wide variation.

Mr. KELLEY. Is there any variation in our own coal?

Admiral ROBISON. Yes, sir; but not so great.

Mr. KELLEY. What is the variation?

Admiral ROBISON. The minimum is 14,000 for naval use.

Mr. KELLEY. And the maximum 16,000?

Admiral ROBISON. About 15,250 is the best. The Japanese coal is different in quality and character. You have to provide different grate bars and all that sort of thing, but it can be used. If you use Japanese coal, you require an additional number of firemen.

FUEL OIL.

Mr. KELLEY. Now, fuel oil. How much fuel oil are you asking for?

Captain LEUTZE. We are asking for 5,524,456 barrels, costing \$11,949,398.

Mr. KELLEY. Does that provide for more ships in commission than we had last year?

Captain LEUTZE. For a less number of ships than we had last year.

Mr. KELLEY. Last year you asked for 3,649,048 barrels. You are asking for 2,000,000 more barrels, in round numbers, for fewer ships. Is that right?

Captain LEUTZE. We are asking for fuel oil for these ships in accordance with the operation plan.

Mr. KELLEY. You are asking for 2,000,000 more barrels, in round numbers, than you estimated for this year and you will have fewer ships?

Captain LEUTZE. Yes, sir; 2,000,000 more than the committee allowed in the revised estimate. The basis is different.

Mr. KELLEY. I understand that. Please give us the details of that.

Captain LEUTZE. The details of that are that all the ships steam 16,200 miles less than those which I enumerated this morning. A summary of those is on this first page of the small sheets.

Mr. KELLEY. Just run down that list if you please.

Captain LEUTZE. Battleships, first line, 768,691 barrels. Nothing for battleships in ordinary.

Mr. KELLEY. Just run down that list if you please.

Captain LEUTZE. Battleships, first line, 768,691 barrels. Nothing for battleships in ordinary.

Mr. KELLEY. Is that because they burn coal?

Captain LEUTZE. Yes, sir; all in ordinary burn coal. Four cruisers, second line, they burn coal.

Mr. KELLEY. We should reduce those cruisers to three?

Admiral COONTZ. No, sir.

Captain LEUTZE. Three light cruisers, first line, 177,957 barrels.

Colonel ROOSEVELT. Those three light cruisers were not in commission last year?

Captain LEUTZE. No, sir.

Colonel ROOSEVELT. That is new, and so is the aircraft carrier.

Captain LEUTZE. Aircraft carrier, 58,355 barrels; 1 mine layer, 5,684 barrels; 65 destroyers, active, 1,259,540 barrels; 50 destroyers, reserve, 853,020 barrels; four light mine layers, 118,618 barrels; 84 submarines, 179,553 barrels; 10 patrol gunboats, 53,051 barrels; 5 destroyer tenders, 166,359 barrels; 7 submarine tenders, 118,224 barrels; 1 aircraft tender, 39,576 barrels; 7 oilers, 485,808 barrels; 2 ammunition ships, 94,337 barrels; 5 cargo vessels, 213,212 barrels; 3 transports, 276,340 barrels; 1 hospital ship, 59,346 barrels; 8 tugs, 1,371 barrels; 10 mine sweepers, 169,200 barrels; 4 auxiliaries, miscellaneous, 82,194 barrels; 14 seagoing tugs for shore activities, 167,680 barrels; 5 shore base submarine tenders, 60,799 barrels; 19 oil barges, 1,520 barrels; making a grand total of 5,524,456 barrels.

Mr. KELLEY. The destroyers are to go how many miles?

Captain LEUTZE. The destroyers, active, 16,200 miles and in reserve 12,000 miles.

Mr. KELLEY. How much oil does it take to run a destroyer 100 miles at an economical speed 15 knots.

Captain LEUTZE. Two thousand six hundred and fifty-six gallons. That is, 15 knots. They burn 398.4 gallons per hour, a little more than six hours, or 63 barrels for 100 miles.

Mr. KELLEY. Do you agree with that figure, Admiral? Does it take that much oil to run a destroyer 100 miles, 60 barrels, at the economical speed of 15 knots?

Admiral ROBISON. I judge that is not far wrong. It is about equal to the engineering standards, which standards are based upon the best performances of vessels of that class under ordinary cruising conditions. They do not have to break a record to do that.

Mr. KELLEY. That is, they could run on less oil?

Admiral ROBISON. I believe that if every ship were in first-class shape in all particulars, if the personnel were thoroughly trained in all details, and if the weather were perfectly good all the time, that they would run for less.

Mr. KELLEY. How much did these destroyers of Admiral Strauss use?

Admiral ROBISON. The best division of six destroyers got about 25 per cent better, 23 gallons per knot. This is 24.5.

Mr. KELLEY. After they had followed out all of your instructions?

Admiral ROBISON. Yes, sir. In past practice the results have not been so good as this. In 1913 we did not know much about it. We used oil burners and they used per knot 39.72 gallons, practically a 40 barrel. This estimate is based on 24.5 gallons per knot. In 1921 they used 31.34 gallons per knot. The first half of this year the average was 30.86 gallons per knot. The performance of these destroyers out in Asia at low speed was twenty-three and a fraction

gallons, which is a little bit better than this. The performance with the average destroyer next year will not equal the efficiency upon which this figure is based.

Mr. KELLEY. This would be a fair amount to base it on, 60 barrels for 100 miles?

Admiral ROBISON. I am of the opinion that they will use fully that much on the average next year. I should hope at the end of the year that they would be running on 58 barrels.

Mr. KELLEY. You said that he did very much better out there and that there was a saving of about 50 per cent?

Admiral ROBISON. No, sir; that was the saving made on the port consumption. Of course, the port consumption was very material; he cut that in two.

Mr. KELLEY. On the destroyers?

Admiral ROBISON. Yes, sir.

Mr. KELLEY. How much do you figure it would take to lay up a destroyer in port every 24 hours?

Admiral ROBISON. You mean if out of commission?

Mr. KELLEY. No.

Admiral ROBISON. Kept in full commission?

Mr. KELLEY. Yes, sir.

Admiral ROBISON. In port in 1913—

Mr. KELLEY (interposing). A destroyer?

Admiral ROBISON. I am talking of a destroyer. In 1913 it was 48.06 gallons per hour. In 1921 it was 48.30 and the first half of this year it has been cut to 35.

Mr. KELLEY. Eighteen or nineteen barrels a day?

Admiral ROBISON. Somewhere around 20 barrels a day. While a vessel is at yard undergoing repairs it will receive from the yard certain electric light, power, and water, and its consumption can be expected to fall to approximately 25 gallons per hour, 600 gallons a day.

Mr. KELLEY. Twelve or fifteen barrels?

Admiral ROBISON. Around that. I should anticipate that next year, if you have 65,000 men only, that we will be able to put on these destroyers sufficient officers to take care of them properly and to properly govern the actions of the men that run the ship. We will have a little bit better trained men. I therefore anticipate that next year the port fuel consumption of destroyers may become as low as 30 gallons an hour; that is, 720 gallons a day. That is about 15 or 16 barrels. I think that is about what it will come to for the average destroyer at the end of next year. With the decrease in personnel to 65,000 and without a cut in the number of officers—

Mr. KELLEY (interposing). You can put more officers on the destroyer and they can take better care of the machinery and carry out your instructions?

Admiral ROBISON. Instead of having one officer doing engineering duty I anticipate that they will have two, and the result will be that we will have better enforcement.

Mr. KELLEY. Much more efficiency?

Admiral ROBISON. I think if we had more officers on the boat we would have a more efficient boat.

Mr. KELLEY. That is, if you undertook to run more destroyers than you had officers to take care of—

Admiral ROBISON (interposing). Experienced officers.

Mr. KELLEY. The cost of operation would increase?

Admiral ROBISON. It is bound to. That is responsible in no small measure for the recent high cost of operation of all classes of naval vessels, a lack of training of the officers, primarily the officers, and of the men.

Mr. KELLEY. The engineers on these boats are petty officers?

Admiral ROBISON. No, sir; commissioned officers.

Mr. KELLEY. I know that there are commissioned officers, but do the petty officers really operate the engine room?

Admiral ROBISON. We have not really the habit of regretting it when we get our hands dirty.

Mr. KELLEY. You have allowed 1,259,540 barrels for 65 destroyers active commission?

Captain LEUTZE. Yes, sir.

STEAMING AND PORT CONSUMPTION OF OIL.

Mr. KELLEY. How do you divide that 1,259,540 barrels of oil as between steaming and port consumption?

Captain LEUTZE. We took for port consumption per day 1,218 barrels. That figure was obtained by taking the reports received in operations from 259 destroyers and getting the average.

Mr. KELLEY. How many barrels would that be in port per day?

Captain LEUTZE. Twenty-nine barrels.

Mr. KELLEY. Admiral Robison says that out in Admiral Strauss's vision, where he has been watching the matter very carefully, they have cut the consumption down to 18, so that you are allowing for pretty liberal consumption there. That would run into quite a lot of money. They would be about 300 days in port, would they not? How do you divide the time between port and sea?

Captain LEUTZE. This time has not been fixed, but a formula is being worked out for it.

Mr. KELLEY. Give it roughly; we will not be technical.

Captain LEUTZE. It is the number of hours in a year that we subtract plus the number of hours in port. It is 50.7 per hour in port.

Mr. KELLEY. Steaming 100 miles every third day would give you only 6 hours out of 72 hours.

Admiral ROBISON. It averages more nearly 45 days under way and 320 days in port for destroyers. Battleships steaming at 12 knots would be underway 56½ days and 308½ days in port. Destroyers steaming only 12,000 miles would be underway 33½ days and in port 332½ days.

Mr. KELLEY. On the basis of 320 days in port, you figure 29 barrels of oil per day for each one of these destroyers. That is the figure, but if you estimate 18 barrels per day, it would be a vastly different figure. Which figure do you think we could safely adopt here? Possibly we could split the difference between the two.

Admiral COCHRAN. No, sir; they have taken the average for 259 destroyers for the year and for the past six months. Admiral Robison has presented you with figures based upon only six destroyers, and these are the best we have. They were the ones that could make long cruises, and it is possible that they made that record. I do not doubt that all, but the others can not do that.

Mr. KELLEY. They are all new boats?

Admiral COONTZ. No, sir; they are not all boats of that character, and I do not think that Admiral Robison will tell you that we could go on the basis of the fuel consumption of those 18 destroyers. We have the absolute facts down to the 1st day of January for the 259 destroyers.

Mr. KELLEY. Admiral Robison said that he had issued instructions which he thought would make quite a difference when followed out. He said that they had been tested out by Admiral Strauss with very fine results, and he makes the point now that, possibly, with not so many destroyers operating, and with a little closer supervision, a very great reduction in the port consumption of fuel could be brought about. You could, at least, go below the consumption for the past six months, because you will be getting the whole thing better in hand and stronger all the time.

Admiral COONTZ. What we are talking about has been going on for years. It is not a new thing, and Admiral Robison read the figures for 1913 and 1914. We have been coming down all the time, and we have the actual facts as to 259 destroyers up to January 1.

Mr. KELLEY. If Admiral Strauss can handle the destroyers in port on 18 barrels of oil per day, you will not ask us to give you 29 barrels per day for the rest of the outfit for 320 days in port.

Colonel ROOSEVELT. What was the total estimate?

Captain LEUTZE. One million two hundred and fifty-nine thousand five hundred and forty barrels.

Admiral COONTZ. We keep a card for every destroyer.

Mr. KELLEY. I have no doubt of that, and I do not question the accuracy of the statement that during this year your destroyers used that amount of oil. In fact, I possibly have complained a little about that, but I was not complaining about anybody personally. But now, when we are up against this proposition, and when Admiral Robison says that Admiral Strauss cuts this consumption down to 18 barrels per vessel, I do not know whether Congress will be willing to give you 29 barrels for each of your destroyers in port per day.

Admiral COONTZ. Admiral Robison, have you gone over those figures?

Admiral ROBISON. I will be glad to do so.

Mr. KELLEY. That is the experience of the past six months.

Admiral COONTZ. These are the Asiatic ships that we are talking about.

Mr. KELLEY. Of course, if Admiral Robison has made any error about it—

Admiral ROBISON (interposing). I have not made any error about it. I have not said what they have done, but I said what their reports show, and I believe that the reports are absolutely correct.

Mr. KELLEY. Do you not think that with fairly good supervision, or with the supervision that the other submarines had, and with constant hammering of these officers to follow your instructions, the same thing could be done at San Diego?

Admiral ROBISON. In time.

Mr. KELLEY. What would be a fair allowance to make for the inexperience of the boys at San Diego as against the experience of those under Admiral Strauss?

Admiral ROBISON. I am of the opinion that the destroyers at Sanago that are operating on the 50 per cent basis are using less oil in port than those with the division.

Mr. KELLEY. We are saving money to-day "to beat the band."

Admiral ROBISON. There is no question about it. If you take those per cent boats and bank them together, as they are now doing, with four or five side by side, and let one of them supply steam to the others by means of a pipeline from the one that is steaming to all the others, then you will supply four or five of them with steam through only one of the boilers radiating heat and you will be able to save a great deal. That is one way in which we have been saving a great deal of fuel oil. Most of these 50 per cent destroyers have recently been ordered out of commission, so we can not expect much saving in this way next year.

Mr. KELLEY. In the last six months at other places that was not the case?

Admiral ROBISON. That has been done in the case of those operating on the 50 per cent basis.

Mr. KELLEY. Out there?

Admiral ROBISON. And in Charleston, also.

Mr. KELLEY. In the early part of this year those boats were not handled that way?

Admiral ROBISON. No, sir; we had not furnished them the equipment.

Mr. KELLEY. Now, we have passed that stage, and we have acquired the experience and understand the problem. I think the main thing was the problem. Sometimes when a result is obtained no one knows what the problem is, and that knowledge does not come until you have wasted some money. Suppose we split the difference between 18 and 29?

Admiral ROBISON. Suppose you give more than they should use? They will not use it.

Mr. KELLEY. Yes; they would.

Admiral ROBISON. I do not believe they would.

Mr. KELLEY. Those destroyers with 50 per cent crews on board are in a position where they can do a lot of steaming, and I do not believe that anybody in the Navy Department could keep track of their daily steaming.

Admiral COONTZ. Absolutely, hour by hour.

Admiral ROBISON. Not only that, but we do keep track of it.

Admiral COONTZ. We keep track of it every hour.

Admiral ROBISON. I can show you that the way they are doing it is much better than you imagine.

Secretary DENBY. They report the exact number of gallons of fuel consumed during every month, and a summary of it is sent to the department. I went into that on shipboard, and when we reached the end of the voyage we knew exactly not only how much fuel was consumed each day but how much was consumed during each watch and each hour of the day.

Mr. KELLEY. Admiral Coontz would not know until the report came in, perhaps, several months later.

Secretary DENBY. They can tell which watch makes the better record on fuel consumption.

Mr. KELLEY. When you allocate the fuel you can hold them pretty well in check, but when they are having summer maneuvers and have enough men on board to navigate the ship I doubt if the admiral could tell at any given time just where those ships were.

Admiral COONTZ. I know daily what they are doing, and the reports I am referring to are the ones on which is determined the standing of the commanding officer, as well as many other questions, including that of prize money.

Mr. KELLEY. I know, but while the ship is actually going do you know exactly how much oil she is using or is going to use?

Admiral COONTZ. I do at the end of the month, or when the returns come in.

Mr. KELLEY. You do not get that information every day, but you have to leave that to the discretion of the commander of the ship.

Secretary DENBY. But the commander wants to make a record for himself and for the ship.

Mr. KELLEY. Well, what would you say about this, Admiral?

Admiral ROBISON. The way they are doing it out in Asia is to comply with some orders that have been issued by Admiral Coontz, which have placed them upon a specific fuel allowance for all purposes. In the case of the destroyers under Admiral Strauss they have saved 762,357 gallons on their allowance.

Mr. KELLEY. They did not use up all the oil?

Admiral ROBISON. No, sir; they did not use it. That is what I wanted to say.

Mr. KELLEY. They did the work all the same, but saved that much oil?

Admiral ROBISON. If you allow them too much they will not waste it. We are not wasters of Government money.

Mr. KELLEY. Admiral Strauss was over there—

Admiral ROBISON (interposing). He could get away with it, if anybody could; but he would not do that, and not one naval officer that is in authority would do that.

Mr. KELLEY. But there are circumstances sometimes in which you can not quite control it. You do not always have old experienced officers like Admiral Strauss in charge of them.

Admiral COONTZ. He is not in charge of the destroyers, but he is the admiral. The officer in charge of them is a young man. McDowell is in charge of them, and you know him. They are all the same, and they are not cruising around for nothing. They are trying to bring the fuel consumption down as much as they can, because it helps their own records.

Mr. KELLEY. How about the battleships? For the active battleships how do we divide the time up as between steaming and in port? Is it 320 days in port and 45 days at sea?

Captain LEUTZE. We base it on 365 days in the year.

Mr. KELLEY. That would be 40 and 320.

Captain LEUTZE. 56.25 at sea and 308.75 in port for battleships.

Mr. KELLEY. Is that the way you divide it as to the destroyers?

Captain LEUTZE. No, sir. Destroyers would be 45 days steaming and 320 days in port for the 65 active boats.

Mr. KELLEY. What is your experience about the amount of oil that a battleship ought to use in port?

Admiral ROBISON. It depends very much upon the design of the machinery.

Mr. KELLEY. Well, let us take some particular ship.

Admiral ROBISON. The best that we have is running slightly under 10 tons.

Mr. KELLEY. Let us not take the best.

Admiral ROBISON. The average is running about 15 tons.

Mr. KELLEY. 15 tons for 24 hours would be how much?

Admiral ROBISON. That would be approximately 105 barrels per day.

Mr. KELLEY. How much have you figured on a battleship using in port?

Captain LEUTZE. It varies from 86 barrels to 190 barrels for port consumption.

Mr. KELLEY. Then, you have not gone far out of the way on that. The Admiral said 105.

Captain LEUTZE. I am giving this from reports sent from individual ships.

Admiral ROBISON. You had better take his estimate instead of nine, because I am saying what could be done, in my opinion, and he has the actual reports.

Mr. KELLEY. The destroyer proposition is the big oil problem. What is your opinion as to the proper oil consumption in running a battleship?

Admiral ROBISON. I happened to be the commander of a coal burner, and my opinion would probably not be a satisfactory one.

Mr. KELLEY. How many barrels of oil do you figure per 100 miles per battleship, or how much would be required for steaming 24 hours?

Captain LEUTZE. That varies from 498 to 823 barrels per day of 24 hours steaming. The larger battleships have the better records. The record of the *New Mexico*, for instance, is particularly low. It has a pretty low average consumption for 12 knots. The others are higher.

Admiral COONTZ. The *New Mexico* won the pennant.

Captain LEUTZE. The *Pennsylvania* is higher.

Mr. KELLEY. That is one of the medium-sized ships?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. Now, as to the destroyers in reserve: What do you figure them at?

Captain LEUTZE. At 12,000 miles or 1,000 miles per month.

Mr. KELLEY. You are not going to make that mileage with the destroyers in reserve, are you?

Admiral COONTZ. Destroyers operating with 50 per cent complements must be assumed to do a normal cruising average one-half that of the active destroyers operating with the fleet. This is the minimum steaming which will maintain efficiency and carry on a part of the regular target practice and the engineering runs. In addition to this normal steaming of 8,000 miles, the eight active destroyers in the Near East and 12 of the destroyers in the Asiatic must be relieved by vessels from the reserve destroyers in home waters, and the necessary steaming to accomplish these reliefs will increase the average steamed by the destroyers in reduced commis-

sion to more than 12,000 miles. A figure of 12,000 miles can be accepted as a minimum average mileage for the destroyers with 50 per cent complement. That is the reason we have given you that figure.

Captain LEUTZE. They actually do 8,000 miles per annum, and the extra 4,000 miles is to cover the reliefs in foreign waters.

Mr. KELLEY. How many days will they be in port?

Comander HILL. It will be half of the other number.

Mr. KELLEY. You would have $22\frac{1}{2}$ days at sea and $327\frac{1}{2}$ days in port. When in port the figure, of course, would be the same as in the case of the others?

Captain LEUTZE. No, sir. Thirty-three days steaming; 332 days in port for the destroyers with 50 per cent complement.

Mr. KELLEY. And when they are at sea that figure would be the same as the figure for the others at sea?

Captain LEUTZE. Yes, sir; the same speed.

Commander HILL. This is the way they were figured: There are 50 boats steaming 8,000 miles apiece, making 400,000 miles. Then there are eight boats in the Near East which have to be relieved next year, making 5,400 miles for the eight going over and for the eight coming back. There are also 12 destroyers on Asiatic station that are to be relieved during the next fiscal year. Dividing this extra steaming among all 50 destroyers in reserve increases the mileage basis to an average of more than 12,000 miles.

Mr. KELLEY. Of course, if we should conclude that you are proposing a larger steaming program than Congress wants to pay for, you would have to readjust your operating plans to meet the situation, would you not?

Admiral COONTZ. I think the Secretary would have to put certain ships out of commission to carry it out.

Mr. KELLEY. If Congress concluded that 16,000 miles a year was more than they wanted to pay for, you would still keep up that rate on all that you had in operation, and rather than run, say, 15,000 miles or 12,000 miles a year, you would put ships out of commission?

Admiral COONTZ. I would not say that positively, but that would be a question that would have to be very carefully considered. If we found that we did not have enough money to do the steaming and the target practice that would keep those ships to the tiptop notch, I think the Secretary would have to consider the question of whether or not he would put some of them out of commission.

Mr. KELLEY. Of course, you do change your operating plans every little while to meet conditions?

Admiral COONTZ. Yes, sir.

Secretary DENBY. It just happens that in 1916 our operating plans for the vessels called for approximately or almost exactly the same amount of steaming.

Colonel ROOSEVELT. The steaming in maneuvers is a very small part of the fuel appropriation, and that, I think, is what probably guided the admiral in making his last statement about putting ships out of commission. Speaking offhand and without being absolutely accurate, I think about \$5,000,000 of the \$17,000,000 is for maneuvers and \$12,000,000 represents fixed charges or port charges.

Mr. KELLEY. I suppose, Admiral, it is necessary to run these mine sweepers next year 30,000 miles apiece?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. They are tugs, are they not?

Admiral COONTZ. They are tugs that tow and do every sort of an d job that comes their way.

Mr. KELLEY. What is the speed of a tug?

Admiral COONTZ. This is figured at 10 or 12 knots, but when they e towing that would be brought down.

Mr. KELLEY. I want to see how many days these mine sweepers ould have to go.

Captain LEUTZE. Twelve knots is taken as the average.

Mr. KELLEY. If they went 100 miles that would be eight hours.

Captain LEUTZE. Eight and one-third hours, sir.

Mr. KELLEY. And you want them to go nearly twice as far as the ttleships and they have about half the speed?

Captain LEUTZE. When they are towing they burn a great deal ore fuel.

Mr. KELLEY. Do not mix up the situation. I am talking about the stance. You are providing that these mine sweepers shall go .000 miles apiece and they only go 12 miles an hour.

Commander HILL. That is just an approximation.

Mr. KELLEY. That is what you are asking, so there is no use talking out approximations.

Commander ROWCLIFF. They might only go 15,000 miles, Mr. airman.

Mr. KELLEY. Then you would not need to have them placed on the sis of 30,000 miles.

Commander ROWCLIFF. Yes; because she would be dragging some- ing behind, and that would burn up the extra fuel.

Admiral COONTZ. She is towing a part of the time.

Commander ROWCLIFF. And of course when she is towing she does t go 12 knots; she may only be going 5 or 6 knots, but she is burn- g fuel for 12 or 13 knots.

Mr. KELLEY. So when you asked him to figure on the basis of 0,000 miles for the mine sweepers you did not intend that they ould travel 30,000 miles?

Commander ROWCLIFF. They would not go 30,000 miles.

Mr. KELLEY. What do you need to drag behind them? Nothing it a rope or chain to sweep up the mines?

Commander ROWCLIFF. They have drags behind them when sweep- g for mines.

Mr. KELLEY. What else do they drag?

Commander ROWCLIFF. Barges.

Mr. KELLEY. You have seagoing tugs here that are going to go 0,000 miles apiece?

Admiral COONTZ. These are shown under the heading of mine eepers: 2 of them are mine sweepers, 7 are fleeting towing boats, d 1 is an air tender at San Diego. The fleet towing is prac- ally a continuous performance, the towing of targets and things hat character right straight along. In that way they serve the et. A battleship does not tow a target. We have a smaller vessel do that, so that these vessels are continuously occupied. We have of them this year, and we are only counting on 7 next, so just nk of the added duties for that number.

Mr. KELLEY. Why do you put them down as mine sweepers?

Admiral COONTZ. Because they are carried that way on your book.

Commander HILL. They have been referred to as mine sweepers all along.

Mr. KELLEY. We did not make the name "mine sweepers" here.

Commander HILL. No; but that is the way we have been talking about them during the last few weeks of the hearing.

Mr. KELLEY. But they are not mine sweepers.

Admiral COONTZ. They are all mine sweepers. Two of them are being used as mine sweepers and seven are being used as fleet tugs.

Mr. KELLEY. And the reason they have to go 30,000 miles is because they go back and forth?

Admiral COONTZ. They tow ships, barges, lighters, targets, and all sorts of things for the battleships, as well as any job that is given them. As I say, this year we are using 19, and we have reduced that number to 7, and you can imagine the added work they will have.

Mr. KELLEY. Have you been running these tugs 30,000 miles a year in the past?

Admiral COONTZ. I think we undoubtedly have, or we would not have made that figure.

Commander HILL. Not 30,000 miles exactly, but it is that amount of fuel that will be expended; we know it will take that amount if those boats go 30,000 miles, and we figure it will take that amount of fuel; although they may not go that mileage they will use the fuel. That is just the fuel estimate and that mileage is given in order to help Supplies and Accounts as to some basis on which to figure their fuel.

Mr. KELLEY. Is there not any basis which can be formed on experience?

Commander HILL. Yes, sir; and if you would like to have it, we could insert it in the record. The amount of fuel those types of craft burn per vessel was all taken into consideration when this was made up, and that could be inserted in the record if you desire.

Mr. KELLEY. We do not want to bother you too much.

All right. Transports, 75,000 miles, three times around the world.

Admiral COONTZ. Yes, sir.

Mr. KELLEY. Could they go three times around the world if they kept going all the time?

Admiral COONTZ. Oh, yes.

Mr. KELLEY. How long does it take to go around? What is the speed of the *Hancock*?

Admiral COONTZ. Let us take an average. I think it is figured at 12 knots an hour, or 12½, or 300 miles a day; and it is, say, 21,000 miles around the world, or 70 days, and three times 70 is 210.

Mr. KELLEY. It used to be 25,000 miles around the world when I was a boy.

Admiral COONTZ. That was land miles, Mr. Kelley, but it is only 21,000 sea miles around the world. That would give 150 days in port and 210 at sea for the transports, and that is a pretty good average.

Mr. KELLEY. That is to go around once?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. But if you went around three times——

Admiral COONTZ (interposing). I said 3 times 70 would be 210, and that would be 3 times around, and there would be 150 days left in port.

Colonel ROOSEVELT. May I draw attention to another fact? I think Mr. Byrnes was talking particularly about assembling the men who were to be discharged and bringing them back. Now, how do you bring them back? By transports?

Captain LEUTZE. The *Chaumont* is actually making a trip at that rate now.

Mr. KELLEY. Three times around the world?

Captain LEUTZE. At that rate; yes, sir. We were looking her up very particularly the other day, and we found she would be able to make three trips comfortably in a year.

Mr. KELLEY. Do you have to carry three shifts of men on these transports, and is that the reason why you must have so many men?

Admiral COONTZ. No.

Mr. KELLEY. If these ships sail for the time you suggest, you would have to have three crews.

Admiral COONTZ. I do not believe I catch what you are talking about.

Mr. KELLEY. The boys could not work 24 hours a day, you know?

Commander ROWCLIFF. They all have watches in the fireroom; they all stand from three to four watches in the fireroom, and on deck, too, so far as that goes.

Mr. KELLEY. In commerce, you know, you must have three full crews for ocean traffic, so that the boys work eight hours, when another shift comes on and works eight hours. You do not work your men any more than that, do you?

Commander ROWCLIFF. Ours do not belong to the union.

Mr. KELLEY. I am asking whether you work your boys longer than eight hours a day?

Admiral COONTZ. Yes.

Mr. KELLEY. Every day?

Admiral COONTZ. But not normally if we can help it.

Mr. BYRNES. You do not mean eight consecutive hours?

Admiral COONTZ. No; four hours on and four hours off. I have done it myself many a day.

Mr. KELLEY. Do you not have the sailing of these ships pretty high—75,000 miles?

Admiral COONTZ. No, sir; not for one minute. We only have three of them left, and we can show you what they are actually doing. This gives them 150 days in port. What would an ordinary liner do with 210 days at sea and 150 days in port? That is nothing for a transport, and they all have long distances to travel: for instance, from New York to San Diego, to Honolulu, and so on.

Commander HILL. This is figured on exactly what they are doing to-day.

Admiral COONTZ. This very minute.

Mr. KELLEY. What do you mean by saying on exactly what they are doing to-day? What is it?

Commander HILL. We have two transports running between here and the Philippines and back again.

Mr. KELLEY. In what time? What do you mean by to-day?

Commander HILL. We count on them making one round trip between the Atlantic—Philadelphia or Norfolk—and Manila and back again every four months, three round trips between Norfolk and Manila during the year. That is the basis.

Mr. KELLEY. How far is it from Norfolk to Manila?

Admiral COONTZ. About 12,000 miles, I guess. The run from New York to Bremerton is 6,039 miles, and the run from San Francisco to Cavite and return is 13,716 miles, half way around the world and over.

Mr. KELLEY. So they go around every three months?

Admiral COONTZ. Every four months, and I do not think that is at all high.

Commander HILL. They actually do it in three months, and then they have two weeks at each end.

Mr. KELLEY. Which one is doing that?

Commander HILL. Both the *Chaumont* and *Argonne* are doing that.

Mr. KELLEY. What is the other one doing?

Commander HILL. The other one is right now in the West Indian service.

Admiral COONTZ. The *Henderson* is making round trips right along with the marines.

Mr. KELLEY. Making trips to where?

Admiral COONTZ. Santo Domingo and ports of that character.

Mr. KELLEY. How many miles has she sailed in the last four months?

Commander HILL. She is working on pretty nearly a basis of that kind. Captain Leutze has the exact figures. She is making shorter runs, but making more of them. She is looking out for the marines in the West Indies. We can insert in the record what her mileage is for the last six months, and I think you will find it is about an average of this, as we went into that very carefully.

Commander COBEY. The *Henderson* is making about the same mileage as the *Argonne* and *Chaumont*.

Mr. KELLEY. What is the speed of the *Henderson*?

Commander HILL. She averages about 12 knots.

Admiral COONTZ. I think her economical speed is 12 knots, and we have ordered them to make an economical speed.

Mr. KELLEY. Will your ammunition ships have to run 50,000 miles a year?

Admiral COONTZ. Yes, sir; and they are doing it now. They are carrying ammunition to the Pacific and to Cavite.

Commander COBEY. Fifty thousand miles for the ammunition ships.

Admiral COONTZ. The steaming of the *Pyro* for the first six months of the year is 26,182 miles, estimated.

Commander HILL. The situation as to those boats is that we have a great amount of ammunition and ordnance material which has been stored on this coast for a long time and we have not been able to get commercial vessels to transport that material on account of the risk, and now that we have these ships we will keep them running

between this coast and the west coast in hauling supplies to the west coast, Pearl Harbor, and those places which need supplies, mines, etc.

Mr. KELLEY. It is to distribute your ammunition where you need it?

Commander HILL. Yes, sir; we have just gotten them.

Mr. KELLEY. Just how did you use oilers? Do they bring the oil to the ships or from the refineries to your depots?

Admiral COONTZ. They do about four separate things. Will you tell them exactly, Commander Cobey?

Commander COBEY. Of the oilers on the Atlantic coast two are engaged in carrying oil to the fleet at Guantanamo, and there are two, one a large one and one a small one, engaged in carrying oil from Port Arthur to places where it is consumed on this coast or from Fall River. However, we have just finished that contract so that there will be no more ships out of Fall River. That makes four on this coast. One is engaged in carrying oil to the vessels in European waters; there are three with the Pacific Fleet engaged in carrying oil from the refineries in the vicinity of San Francisco and Los Angeles, where the pipe-line terminals are, to San Diego and to the fleet, wherever it is along the coast, to Puget Sound and to Pearl Harbor.

Mr. KELLEY. How much oil will one of them hold?

Commander COBEY. They vary from 55,000 barrels to 70,000 barrels; the average is about 62,000 barrels.

Mr. KELLEY. What part of the oil do you suppose is taken on board the ships from the oilers?

Commander COBEY. Practically all of it.

Mr. KELLEY. It is all carried out to the fleet?

Commander COBEY. Yes, sir.

Mr. KELLEY. Sometimes a short distance and sometimes wherever the fleet is?

Commander COBEY. I thought you meant whether the vessels go alongside a dock, but none of the larger ships go alongside a dock.

Mr. KELLEY. You pump the oil from the oilers into the large ships even though the oil is taken on board right in the same harbor?

Commander COBEY. No; they use barges there; they do not use oilers.

Mr. KELLEY. You do not use oilers except where the ships are some distance from the storehouse?

Commander COBEY. When the ships are some distance away or where there is a large group of vessels, but when there are only one or two and they are in one place it does not pay to use an oiler.

Captain LEUTZE. When the fleet is in New York we have to use all the barges we can get from the oil companies in addition to the oilers, because there are not enough barges.

Mr. KELLEY. You would probably say that the bulk of the work of the oilers would be in carrying the oil from the refineries to your storehouses, would you not?

Commander COBEY. In normal times there is just about as much oil carried to the vessels of the fleet, wherever they are—that is, throughout the year—as there is to storages. At this time of the year on the Atlantic coast all of the oil that is used is brought in

oilers, but when the fleet is along the coast there is much less carried in oilers.

Mr. KELLEY. Would you say it took one oiler to take care of the oil for every one battleship and four or five destroyers?

Commander HILL. I do not believe we figured it just that way; it is just a matter of tonnage capacity, etc. It depends on where they get their oil.

Mr. KELLEY. It depends on where the ships are and how far they have to go for oil?

Commander HILL. Yes; it involves a lot of variables, and we could give them to you for any set of ifs.

Mr. KELLEY. If the battleships on the Pacific are in port 320 days, what ports would they be in?

Admiral COONTZ. They would be in Puget Sound, San Francisco, San Pedro, and San Diego; and if we had the necessary fuel they would go to Hawaii once in awhile, and if we had a lot more fuel they would sometimes have joint maneuvers with the Atlantic Fleet.

OIL RESERVES.

Mr. KELLEY. Where is the oil on the Pacific coast stored?

Admiral COONTZ. We get most of it at that place north of San Pedro. What is the name of that place?

Commander COBEY. Port San Luis; and we do not get any at San Diego now.

Admiral COONTZ. Do we get any at San Pedro?

Commander COBEY. Yes, sir.

Admiral COONTZ. Then, we get it at San Pedro and San Luis.

Commander COBEY. And San Francisco.

Mr. KELLEY. How many of the oilers will you have in the Pacific?

Admiral COONTZ. I will have to look at my list and see. I have it in the record, but I do not remember.

Captain LEUTZE. They said there were two to operate across the Pacific.

Mr. KELLEY. You do not need but two in the Pacific?

Admiral COONTZ. Three with Pacific Fleet, one with Asiatic Fleet, and two in naval transportation service in the Pacific.

Mr. KELLEY. If you have 10 oil-burning battleships in the Pacific—

Admiral COONTZ (interposing). We will have 12, sir.

Mr. KELLEY. Twelve oil-burning battleships in the Pacific?

Admiral COONTZ. Before we get through.

Mr. KELLEY. And 38 destroyers?

Admiral COONTZ. 19, 19, 19, and 8.

Mr. KELLEY. And 38 would be in the Pacific?

Admiral COONTZ. No; there would be 19 in China, 19 in the Pacific, 19 in the Atlantic, and 8 in the European detachment. Of course, we must have oilers in connection with them, and of the 50 we are going to have in 50 per cent commission a part of them will be in Charleston.

Mr. KELLEY. Have we any storage at Charleston?

Admiral COONTZ. The storage at Charleston is extremely small, is it not?

Commander COBEY. Yes, sir; the storage at Charleston is 36,000 barrels.

Mr. KELLEY. That would not last very long?

Commander COBEY. No, sir.

PRICE OF OIL.

Mr. KELLEY. At what price do you figure this oil?

Captain LEUTZE. \$2.163 per barrel.

Mr. KELLEY. What are your contracts for next year? Take them in the Pacific first.

Commander COBEY. \$1.50 at San Francisco and San Pedro, \$1.65 at San Diego, \$1.88 at Seattle, and \$2.15 at Pearl Harbor.

Mr. KELLEY. How could that average what you gave there?

Commander COBEY. That is for the west coast only, sir.

Mr. KELLEY. What will that average be?

Commander COBEY. That average is \$1.816 with the average barging charge \$0.187 included.

Mr. KELLEY. The bulk of your oil will be delivered at what point?

Commander COBEY. At San Pedro.

Mr. KELLEY. How many barrels there?

Commander COBEY. One million four hundred and eight-five thousand to be delivered.

Mr. KELLEY. And you get it there at \$1.50 a barrel?

Commander COBEY. Yes, sir. One dollar and fifty cents per barrel longside dock, or \$1.687 in barges.

Mr. KELLEY. How many barrels at San Diego?

Commander COBEY. Four hundred and seventy-five thousand two hundred barrels to be delivered.

Mr. KELLEY. How many barrels at Bremerton?

Commander COBEY. Two hundred and sixty-seven thousand three hundred to be delivered.

Mr. KELLEY. How many at Hawaii?

Commander COBEY. Three hundred and fifty-six thousand six hundred and forty-six to be delivered.

Mr. KELLEY. Do you send the oil by freight to Hawaii?

Commander COBEY. Most of it in the past has been delivered by commercial tankers.

Mr. KELLEY. You would not expect to do that this year, would you, Admiral?

Admiral COONTZ. Yes, sir.

Commander COBEY. We will not have sufficient tankers, with only seven left in commission, to send oil to Hawaii.

Mr. KELLEY. How many trips would you have to make to Hawaii to deliver the oil you would need there for a year?

Commander COBEY. There would be about six trips of a commercial tanker.

Mr. KELLEY. Would not that be cheaper than paying freight?

Commander COBEY. You mean if a naval tanker were used?

Mr. KELLEY. Yes.

Commander COBEY. Seven tankers will not allow us enough to send oil there.

Mr. KELLEY. Would eight be all right?

Commander COBEY. I should think that with eight it could be done, yes, sir; one tanker can more than take care of Hawaii.

Mr. KELLEY. Why do you have to have so much at Bremerton?

Commander COBEY. Well, there is always a varying number of ships there for repairs.

Mr. KELLEY. That is based on the plans of the chief of operations.

Admiral COONTZ. The battleships have to go there twice a year to dock.

Mr. KELLEY. You have a fine dock there and a fine yard for making repairs?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. And pending the time when we can put Mare Island in the channel, and everything, into shape you can get along very comfortably there and do all of your docking?

Admiral COONTZ. Yes, sir; we have got along for the battleships now on the west coast, but not comfortably.

Colonel ROOSEVELT. Not very comfortably, because according to your figures you have a very small margin of safety.

Admiral COONTZ. That is very true, but we can get along at present with the present number on the west coast if nothing happens.

ESTIMATED CONSUMPTION OF OIL.

Mr. KELLEY. How many barrels of oil are you figuring for the Atlantic coast?

Commander COBEY. Based on the present distribution, we are figuring on 2,405,710 barrels on this coast.

Mr. KELLEY. What do you want that for? Where does that go, and for what ships?

Commander COBEY. That is on the basis of the present consumption on both coasts.

Mr. KELLEY. I thought you were figuring on the list which the admiral gave you.

Commander COBEY. Well, we are figuring on the location of the ships as at present. The number, however, is in accordance with the list.

Mr. KELLEY. Suppose you figure the way he figures now, would that change your figures?

Commander COBEY. No, sir.

Mr. KELLEY. It would only give you eight in the Atlantic.

Commander COBEY. No; 19 on the Atlantic coast and 8 in the European station, I think was the statement.

Admiral COONTZ. You are figuring exactly as we expect to have it, and I gave you 19 in the Asiatic, 19 in the Pacific, 19 in the Atlantic and 8 in the European detachment.

Mr. KELLEY. You are going to have 19 in the Pacific, 19 on the Atlantic coast, and 8 in European waters?

Admiral COONTZ. Yes, sir.

Secretary DENBY. And 19 in Asiatic waters?

Admiral COONTZ. Yes, sir.

Mr. KELLEY. What is the cost of getting oil delivered at Hampton Roads, if that is your chief storehouse?

Commander COBEY. At Hampton Roads it is \$2.60; that is the price we have estimated. On the west coast we can tell very well

what oil is going to cost year in and year out, as nearly as any market commodity can be gauged.

Mr. KELLEY. Is that what this contract stood you up at Fall River or somewhere near Boston?

Commander COBEY. No; that stood us \$3.70 delivered at Norfolk.

Mr. KELLEY. And that contract is now out of the way?

Commander COBEY. Yes, sir; we have two other contracts still running which have to be set aside until we finish getting the oil under that contract, and we have taken the lower of those two.

Mr. KELLEY. Where do you get this oil on the Atlantic coast?

Commander COBEY. The points of delivery under the contract are Port Arthur, San Diego, at Philadelphia, and New York.

Mr. KELLEY. You buy it at Port Arthur and store it there?

Commander COBEY. We buy it there, but there is no storage at Port Arthur.

Mr. KELLEY. That is Texas oil?

Commander COBEY. No, sir; that is Mexican oil.

Mr. KELLEY. It comes from Tampico?

Commander COBEY. Just now they are drawing it from the lower fields.

Mr. KELLEY. You say there is no storage at Port Arthur?

Commander COBEY. There is no naval storage there.

Mr. KELLEY. How do you happen to have it delivered there?

Commander COBEY. Because that is where the large refineries are. That oil is mixed—that is, 60 per cent of Mexican oil is mixed with 40 per cent of Mid Continent oil and Texas oil, and in that way the fuel oil for the Navy is gotten.

Mr. KELLEY. What did you say the price was?

Commander COBEY. \$2.25 at Port Arthur, \$2.60 at Norfolk, \$2.65 at Philadelphia, and \$2.65 at New York.

Mr. KELLEY. Do you bring it from Port Arthur in your tankers?

Commander COBEY. No; we only bring a part of it; whenever the ships are in small groups along the coast or single at navy yards it is delivered in barges.

Mr. KELLEY. But the oil which is delivered to you at Port Arthur from the refineries you put into your own tankers and bring it up?

Commander COBEY. Yes, sir.

Mr. KELLEY. So that cost is taken care of elsewhere and not out of this appropriation?

Commander COBEY. It is taken care of otherwise; yes.

Mr. KELLEY. So that the Port Arthur price would really be the Hampton Roads price?

Commander COBEY. The total oil used on this coast—

Mr. KELLEY (interposing). Please answer the question directly.

Commander COBEY. No, sir.

Mr. KELLEY. It would not be. Why would it not be if you bring it up yourself?

Commander COBEY. The cost at Norfolk of 163,000 barrels, it is estimated, can be bought under contract—

Mr. KELLEY (interposing). I am talking about your Port Arthur oil.

Commander COBEY. It would cost the same.

Mr. KELLEY. As at Port Arthur, because you deliver it yourself?

Commander COBEY. Not all the oil is delivered by our own tankers. Our own tankers deliver only a part of it. Where there is a vessel at a given port and there is no tanker present, we draw oil from the shore, unless there is sufficient oil in storage, which is not generally the case.

Mr. KELLEY. What part of the Port Arthur oil is delivered by the contractor to Norfolk?

Commander COBEY. At the estimated consumption of 2,405,710 barrels for the Atlantic and European stations together, 163,350 barrels are to be delivered by the contractor at Norfolk, and over half of the whole oil—1,485,000 barrels—are estimated to be delivered to naval tankers at Port Arthur. We assume that there will be tankers enough. There is a tremendous difference in the price. We save 35 cents a barrel whenever we use our own tankers.

Mr. KELLEY. This is going to reduce your expense quite a bit, the difference in the price of oil?

Commander COBEY. Yes, sir.

Mr. KELLEY. This year there will be a great saving to you. What is the average price of oil, taking the oil as a whole on both coasts?

Commander COBEY. \$2.163.

Mr. KELLEY. That is what you are asking for next year?

Commander COBEY. Yes, sir; that is the average price we are asking for next year.

Mr. KELLEY. Do you know what it has been for the past six months?

Commander COBEY. I have that here.

Mr. KELLEY. It is considerably more, because you had this contract at Fall River at \$3.70 per barrel.

Commander COBEY. \$2.75 was the average for the last year.

RESERVE SUPPLY OF OIL.

Mr. KELLEY. How much oil have you in storage on the Pacific?

Commander COBEY. In the Pacific, starting with San Diego, as of the 28th of February, 91,000 barrels in storage. There is no storage in the vicinity of San Francisco. At Puget Sound, which is the next point of storage—the only other one on the coast—203,000 barrels.

Mr. KELLEY. You do not have any storage midway between, near San Francisco?

Commander COBEY. There has been an appropriation for storage in the vicinity of San Francisco, but it has not been built.

Mr. KELLEY. I thought you said a while ago that your oil was delivered at some point midway between San Francisco and Puget Sound?

Commander COBEY. Direct to the ships.

Mr. KELLEY. You do not need any storage for oil on the Pacific?

Commander COBEY. Yes, sir; it has always been considered necessary.

Mr. KELLEY. In case of war you would simply take the private tanks, storage, and everything else out there?

Commander COBEY. Well, the plans of the department call for a considerably larger storage than we have out there.

Mr. KELLEY. Of course, there are large holdings of oil in the vicinity of San Francisco. I do not know how much, but millions

illions of barrels, and in case of the war the first thing Congress would do would be to authorize the Navy Department to take it as we took everything during the war.

Admiral COONTZ. Usually it takes 60 days to get ready for war, while waiting for Congress to act—

KELLEY (interposing). You would not have to wait long for Congress to make a law.

Admiral COONTZ. Our war plans call for certain storage on the coast.

KELLEY. Admiral, would it keep the Navy going a year?

Admiral ROBISON. No, sir.

KELLEY. How much is there?

Admiral ROBISON. I do not think there is more than 2,000,000 barrels of storage altogether on the Pacific coast. I can obtain the figure, I think.

KELLEY. How much oil have we in storage as a result of leases on the reserves?

Admiral COONTZ. We have not any yet.

Admiral ROBISON. None.

KELLEY. When will we have?

Admiral ROBISON. Up to date all of that has been turned into the Treasury.

KELLEY. Is not the royalty paid in oil?

Secretary DENBY. They pay the royalty in oil. The oil royalty goes into reserve, and it is there now. I can not tell you how much it is, but I do not think the Interior Department can tell you.

Admiral ROBISON. There is none yet; there will be some.

Secretary DENBY. I do not know how much money it is. The Treasury of the Interior may know.

KELLEY. The leases have been made to oil people in the vicinity and they pay us in oil?

Secretary DENBY. Yes, sir.

KELLEY. And they store it for us?

Secretary DENBY. The proposition will probably be that they will pump oil at certain stations for the oil which they take out. It is a new thing. We have only begun to tap those wells. There is no estimate at present to estimate.

KELLEY. Have you not any data at all?

Secretary DENBY. We have not been controlling it. We knew that it was being drained off, and we turned it over to the Interior Department.

OIL WELLS ON NAVAL RESERVES.

Mr. FRENCH. Let me explain this situation. I am a member of the Interior Department subcommittee. When we had our hearings, I had something of an opportunity to go into this question, because of the fact that the Bureau of Mines has been charged with the responsibility of cooperating with the Navy Department in handling the oil problem in connection with the naval petroleum reserves. The Interior subcommittee felt that since the benefits of this service would accrue to the Navy, the Navy should be charged with the appropriation for maintaining it, although the Interior Department would be expected to handle the work for the Navy as heretofore,

the Navy paying over to the Bureau of Mines of the Interior Department the money properly charged to the Navy for services rendered. As the members know, there have been set apart several areas in the oil fields for the benefit of the Navy. These fields are in California, Wyoming, and, by way of leases, in Oklahoma. I believe it is the policy of the Navy to hold the oil in storage in the ground within these naval oil reserves wherever possible. On the other hand, there are several fields where private interests own lands that are checkerboarded throughout the Navy holdings. In California, for instance, the Southern Pacific Railroad Co. and the Standard Oil Co. own large acreages. These concerns and others in some places are drilling wells on their own properties near the lands owned by the Navy, and they are pumping out the oil. Necessarily they are depleting the pool underneath the naval lands as well as their own, and the Navy will lose unless it shall sink offset wells and take out its share of oil from the naval reserves.

It is the policy of the Navy to do this very thing, and the Bureau of Mines is charged with the technical responsibility of handling the matter. The wells on naval lands are drilled by lessees on a percentage basis, the Navy receiving from 12 per cent to 35 per cent of the oil produced, depending upon the grade of the oil and the amount from each well. Director Bain, of the Bureau of Mines, has assured me that there is keen competition, and in his judgment the Navy Department is thus receiving the benefit of competitive bids. Part of the work, too, in the Bureau of Mines has to do with inspecting oil wells to see that injury shall not be done the fields. Part of it has to do with gauging the oil produced. Part of it has to do with handling the leases and seeing to it that the Navy Department receives adequate lease contracts. Again, the crude oil is not available for naval use; consequently this oil must be disposed of for refined oil, and the general policy followed is for the exchange to be made of crude oil belonging to the Navy for refined oil suitable for the ships. The Bureau of Mines handles this work. Again, in some places it is more advantageous to sell the oil than it is to store it; in others it is more advantageous to store the oil for future use. Arrangements for storage facilities, determination of proper charges, etc., all of these matters are handled by the Bureau of Mines for the Navy.

The chairman has suggested the advisability of having an insert made in your hearings from the hearings before the Interior Department committee showing the compensation paid to employees engaged in this type of work and I am inserting herewith the statement taken from the Book of Estimates.

FROM ESTIMATES FOR THE BUREAU OF MINES.

Estimates for oil investigations and inspection work (on the basis of \$162,000 asked by the Interior Department for general work).

1. Supervisor of oil and gas operations per annum.....	\$1,800
2. Deputy supervisor of oil and gas operations.....	4,100
1. Associate natural gas engineer.....	3,000
1. Mining engineer ¹	4,000
1. Mining engineer ¹	3,900
3. Petroleum engineer.....	3,000
1. Petroleum engineer.....	4,100
1. Assistant petroleum engineer.....	2,100
1. Chief gauger.....	3,000

¹ Estimated.

port driller -----	\$3, 600
chnical examiner -----	3, 600
l gaugers -----	2, 100
gineering draftsmen ¹ -----	2, 100
gineering draftsman -----	1, 800
nior oil clerk -----	1, 680
nior oil clerk ¹ -----	1, 500
nior oil clerk, per month \$125 ¹ -----	1, 500
nior oil clerk, per annum -----	1, 260
erk -----	1, 500
el and per diem in lieu of subsistence, of \$2.50, \$3, \$3.50, and \$4, suant to section 13 of the sundry civil act, approved Aug. 1, 1914 (Stat. 680) -----	20, 290
hones and telegrams -----	900
heat, and light -----	2, 400
irs -----	13, 000
lies -----	6, 280
oment -----	5, 400
-----	5, 400

Director Bain has advised me further that the salaries paid to the employees necessary in handling this work within the Bureau of Mines are as reasonable as may be, when taken into consideration salaries paid similar employees in private work in the same States.

I shall ask the Navy Department for a statement showing the general plans of the department touching the naval oil lands and shall submit it at this point.

OIL ROYALTY.

Mr. KELLEY. They are asking for \$100,000 to pay men who just look at the oil and see that it is properly delivered to you, and all that.

Do you know anything about that?

Mr. ROBINSON. Yes. For the care, custody, and maintenance of the naval petroleum reserves I will need \$100,000. Up to about the 1st of November all the royalties from oil received for the account of the Navy were transformed into cash and under the law that cash was turned into the Treasury under the heading of miscellaneous receipts. The amount turned in was somewhat in excess of \$3,000,000. It is in the future that the reserve may help the Navy. We never got one cent's worth of benefit from it, except to the extent—

Mr. KELLEY (interposing). That was cash oil royalty?

Mr. ROBINSON. That was all oil royalty. In the first instance, we had to dispose of it and we had no form of disposing of it except by sale.

Mr. KELLEY. Could not you sell it yourself?

Mr. ROBINSON. We could have, perhaps, but what would have been the difference?

Mr. KELLEY. Could you not have bought it out there?

Mr. ROBINSON. Yes, sir; but it would not have made any difference, it would have gone into the Treasury just the same. There would be no use of complicating the books. Under the present agreement the Secretary of the Interior has undertaken to handle the proposition.

Mr. KELLEY. You think that we can not figure on it this year at all?

Admiral ROBISON. I know that you can not.

PRICE OF GASOLINE.

Mr. KELLEY. Now, gasoline.

Captain LEUTZE. We estimate that we will need 3,289,500 gallons of gasoline, at 24 cents a gallon, \$789,480.

Mr. KELLEY. 24 cents a gallon?

Captain LEUTZE. Yes, sir.

Mr. KELLEY. The last gasoline I bought for my car was only 2 cents, retail. How can that be right?

Mr. BYRNES. You can buy gasoline for 24 cents in Washington now.

Mr. KELLEY. At retail?

Mr. BYRNES. Yes, sir.

Mr. KELLEY. I do not believe there is a place in the United States where they pay that much.

Admiral ROBISON. Some of the gasoline is not used in the United States.

Commander COBEY. Most of this gasoline is in drums and that causes the price to be more than the bulk price. The average is 24 cents, but most of the gasoline has to be handled in drums. That costs a great deal more than tank-wagon deliveries.

Mr. KELLEY. How much do the drums hold?

Commander COBEY. Fifty-five gallons. The small boats have to have them. Our price on gasoline was exactly the same as the market price—in fact, when our contract was made in December it was below the market price. We got about 1 cent off on account of the large quantity we bought.

Mr. KELLEY. Can not you work out some other way of getting this gasoline without paying that enormous price? What is the wholesale price of gasoline now in bulk?

Commander COBEY. The wholesale price at Port Arthur is about 16 cents. That is exactly what our contract is. When we can get a tanker in at Port Arthur that carries gasoline, as, for instance, the *Arcthusa*, which is on her way there now. We figure that it will save \$8,600 on one trip alone to Guantanamo, because she will put the gasoline direct into tanks, and there it will be put into drums and sent out to the ships.

Mr. KELLEY. Have you the drums to take care of that?

Commander COBEY. Yes, sir.

Mr. KELLEY. Then you will not need but 16 cents next year?

Commander COBEY. Oh, no; that is for the situation at Guantanamo, where they have bulk storage.

Mr. KELLEY. You have drums enough for the whole service?

Commander COBEY. No, sir. The ordinary purchases are in drums.

Another vessel, the *Brazos*, is carrying drums to Port Arthur to be filled with gasoline, which will be at a price of 18.5 cents. That is because the fleet is down in that vicinity. Up here it would run as high as 27 cents. The quantity of gasoline used in bulk is very much smaller than that used in drums.

Mr. KELLEY. I do not quite get that straight. You have on hand drums enough in the Navy to supply the Navy's needs?

Commander COBEY. No, sir; it is only those vessels with the fleet.

Mr. BYRNES. Can you reuse the drums?

Commander COBEY. Yes, sir.

Mr. BYRNES. Are you not accumulating a supply of drums?

Commander COBEY. No, sir; the supply is not increasing.

Mr. BYRNES. If you keep on using them, it seems to me you would increase the supply of drums?

Commander COBEY. A great deal of gasoline is used at shore stations where there are no facilities for handling it except in drums; it has to be delivered in drums.

Mr. KELLEY. Do you swap drums with the contractor; that is, when he gives you a full drum you give him an empty drum?

Commander COBEY. At most of the points we have been getting an accumulation of drums.

Mr. KELLEY. You say that you have drums enough for the fleet?

Commander COBEY. We have drums enough for the fleet when it is operating as a fleet, but the gasoline is used in many places where there are no drums.

Mr. KELLEY. You can use any quantity and you get that at 16 cents?

Commander COBEY. On the Asiatic Station, at Pearl Harbor, and the European stations it is all obtained by drum deliveries, practically all, and that is very expensive.

Mr. KELLEY. If you owned the drums it would be just a question of delivering them on your cargo ships—you probably would not carry gasoline on anything but a special ship?

Commander COBEY. We do not; no. We do not send any Government drums to Europe or the Asiatic Station, or to Pearl Harbor.

Secretary DENBY. Why do you add the price of the drum to the cost of the gasoline?

Commander COBEY. We have not sufficient Government drums, Mr. Secretary. Our Government drums are only about one-fifth of the needs, and the rest of the gasoline has to be bought in contractors' drums.

Mr. KELLEY. Gasoline in a contractor's drum costs 8 cents more a gallon than it would if bought in bulk at some other place?

Commander COBEY. Yes, sir.

Mr. KELLEY. Do you own the drums?

Commander COBEY. The drums do not become the property of the Government.

Secretary DENBY. The inherent fact is that the cost of gasoline in the drums is 24 cents a gallon, according to your figure?

Commander COBEY. About 27 cents in the drums.

Secretary DENBY. And if you had your own containers down at Port Arthur it would only cost 16 cents, approximately?

Commander COBEY. Yes, sir.

Mr. BYRNES. Do they make you pay for the use of the drums?

Commander COBEY. Yes, sir; for the labor required in the contractor's filling the drums.

Mr. BYRNES. Filling the drum with gasoline does not involve very much labor.

Secretary DENBY. It keeps the men busy all the time.

Commander COBEY. All of the gasoline in the city is bought in bulk.

Mr. BYRNES. The man down here on Pennsylvania Avenue who has to pay rent and a licensee fee and labor sells it to me for 24 cents and your man sells it for 24 cents because of the labor of putting it in the drums.

Commander COBEY. The damage to the drum is figured at from 3 to 5 cents.

Admiral COONTZ. As I understand it, it is all straight. It has to be delivered from where they get it to each coast, a long distance.

Commander COBEY. And that includes freight.

Admiral COONTZ. There is a very great element.

Mr. KELLEY. If you had at Hampton Roads some gasoline storage, how much would it cost you to fill the drums—55 gallons?

Commander COBEY. I have not that figure.

Mr. KELLEY. You are paying \$2.40. It does not seem to me that it would cost \$2.40 to fill a 55-gallon drum.

Commander COBEY. All the oil companies have fixed charges—they are about the same.

Mr. KELLEY. If you go down to Port Arthur and get it and bring it up in drums at wholesale you can get quantities at 16 cents. When they put it in the drums it costs 27 cents.

Commander COBEY. We have only one tanker at present on this coast that will carry gasoline in bulk. The rest has to be carried in drums.

Mr. KELLEY. They have to be specially constructed for gasoline.

Commander COBEY. Yes, sir. It is very hard to make a compartment on an oiler tight enough for gasoline.

Mr. KELLEY. Offhand it seems that there is quite a leakage.

Mr. REED. We are discussing Port Arthur and trying to apply it to different points. The bulk price at Port Arthur is 16 cents. If we furnish the drums and they put it in the price is 18.5 cents.

Mr. KELLEY. But they charge you 27 cents to fill the drum?

Mr. REED. Not at that particular point. At Norfolk the bulk delivery price is 19.5 cents, whereas for delivery in the drums it is 27.5 cents.

Mr. KELLEY. That is quite a big element. Your position is this, that in any event they have to deliver it to Hampton Roads because you have not the necessary facilities there?

Mr. REED. In bulk it is 19.5 cents and in drums they charge 27.5 cents.

Mr. KELLEY. Your gasoline at Hampton Roads costs you 19.5 cents?

Mr. REED. In bulk.

Mr. KELLEY. How in the world can these people in Washington sell it at 23 cents at retail?

Mr. REED. They get it for 1 or 2 cents less than that because it is delivered in tank wagons.

Mr. KELLEY. If it were delivered in bulk at Hampton Roads you say that it would cost 19.5 cents?

Mr. REED. Yes, sir; we have no storage there. In New York and in Baltimore it is 19.5 cents in bulk and in Boston it is 20.5 cents in bulk.

Mr. BYRNES. What is the economical thing to do, to put storage there? Something should be done, do you not think, so that you could be able to buy it cheaper.

Admiral ROBISON. The proper thing to do is to put in machinery that will not burn gasoline but will enable us to use fuel oil instead. The one will cost us about, at most, 7 cents a gallon, and the other costs us at present 24 cents. One we can carry safely; the other we can not.

Mr. KELLEY. This is for the launches and things like that on board the ships?

Admiral ROBISON. Yes, sir; but the amount of gasoline could be reduced by changing the character of the machinery.

Mr. KELLEY. That would cost a lot of money.

Admiral ROBISON. Yes, sir; it would take a lot of money.

Commander COBEY. On the west coast gasoline runs as high as 3½ cents.

Mr. KELLEY. How many subchasers did you include in this gasoline estimate, any?

Captain LEUTZE. No, sir, no submarine chasers.

Secretary DENBY. Is not the cost given by Supplies and Accounts another case of uniting various costs and averaging up the cost of 24 cents for gasoline? That means the cost of gasoline in Europe and Asia and on the east and west coasts?

Captain LEUTZE. Yes, sir.

MEMORANDUM REFERRING TO GASOLINE, YEAR 1923, BUREAU OF SUPPLIES AND ACCOUNTS.

The estimate of gasoline requirements for fiscal year 1923 is based on the motor boats attached to the various naval vessels, such motor boats to operate an average of 51 hours per month each, as follows:

No.	Class of vessel.	Number of boats.	Operating 51 hours per month.	Total for 12 months.	Value.
12	Battleships.....	108	86,904	1,042,848	\$250,283.52
4	Cruisers, second line.....	25	11,628	139,536	33,488.64
3	Light cruisers, first line.....	6	5,202	62,424	14,981.76
3	Light cruisers, second line.....	13	3,570	42,840	10,281.60
1	Aircraft carrier.....	8	4,396	52,632	12,631.68
1	Mine layer, second line.....	6	3,366	40,392	9,094.08
65	Destroyers, active.....	130	19,800	238,680	57,283.20
50	Destroyers, reserve.....	100	15,300	183,600	44,064.00
4	Light mine layers.....	8	1,224	14,688	3,525.12
84	Submarines.....	None.	None.	None.	None.
10	Patrol, gunboats.....	21	4,284	51,408	12,337.92
4	Patrol.....	15	6,834	82,008	19,681.92
5	Destroyer tenders.....	47	24,939	299,268	71,824.32
7	Submarine tenders.....	52	32,538	390,456	93,709.44
1	Aircraft tender.....	10	5,100	61,200	14,688.00
1	Repair ship.....	6	2,754	33,048	7,931.52
1	Store ship.....	6	3,060	36,720	8,812.80
2	Colliers.....	4	1,122	13,464	3,231.36
7	Oilers.....	17	4,968	59,676	14,394.24
2	Ammunition ships.....	8	4,662	56,304	13,512.96
3	Cargo vessels.....	8	1,530	18,360	4,496.40
3	Transports.....	20	13,107	157,284	37,748.16
1	Hospital ship.....	5	3,978	47,736	11,456.04
8	Tugs.....	7	1,326	15,912	3,818.88
4	Mine sweepers.....	10	2,040	24,480	5,875.20
4	Auxiliaries, miscellaneous.....	15	5,661	67,932	16,303.68
		655	269,433	3,233,196	775,967.04

No.	Class of vessel.	Number of boats.	Operating 51 hours per month.	Total for 12 months.	Value.
Shore activities craft:					
1	Privateer.....		1,530	18,360	\$4,000
1	Clarinda.....		1,632	19,584	4,700
1	Zumbrota.....		510	6,120	1,000
2	Ambulance boats.....		1,020	12,240	2,000
5			4,692	56,304	13,700
303	Grand total.....	660	274,125	3,289,500	749,164

Memorandum for the case.—Estimated expenditure of gasoline for motor boats (gallons per hour).

50-foot motor sailing launches, 40-foot motor sailing launches, Navy KK 20-horsepower engine.....	10
35-foot motor boats, Van Blerk 6-cylinder or Sterling 6-cylinder 100-horsepower.....	30
26-foot motor lifeboats, Kermath 4-cylinder 20 horsepower.....	10
36-foot motor sailing launches, 36-foot motor ambulance boats, Navy HH engine.....	6
33-foot, 30-foot, 24-foot motor sailing launches, Navy GG engines.....	4
26-foot motor boat, Navy GG engine.....	4
21-foot motor dory, Navy EE engine.....	2
Motor campain, various, Commercial 6 to 10 horsepower.....	5
50-foot motor boat, 100-horsepower engine.....	20
36-foot special mine-laying launches, Navy KK engines.....	10
36-foot special survey boats, Buffalo Commercial engine 30 horsepower.....	15
30-foot twin-screw motor boats, 2 Commercial engines 10 horsepower each.....	10
24-foot motor surfboats.....	5

NOTE 1.—Some of the vessels have 40-foot motor barges for flag duty. These have eight-cylinder engines and will use about 40 gallons per hour.

NOTE 2.—Above information furnished by the Bureau of Engineering Matd. 17, 1922.

Mr. KELLEY. How much are these drums worth?

Commander COBEX. About \$7 apiece.

Mr. KELLEY. I should think that it would be a good thing to buy enough drums.

Commander COBEX. The experiment has been tried out. We do it at Hampton Roads and Guantanamo, because we have one tanker at present on this coast that can carry gasoline in bulk, but for most of the stations on this coast and all the stations on the west coast where the price run up as high as 36½ cents in drums and as high as 22.5 cents in bulk at Pearl Harbor, 21.5 cents at San Diego, and 25 cents in bulk at Puget Sound, it is not economical.

Mr. KELLEY. The proposition is this: Those drums only cost \$5 and they deliver that oil to you at Hampton Roads in drums at 25 cents; it would be much cheaper for you to have it delivered in bulk at 19.5 cents, as Mr. Reed says, and put it in the drums yourself and supply your Atlantic stations.

Commander COBEX. It is cheaper where a large number of drums can be handled. Where only a small number can be handled, as is frequently the case, the deterioration of the drums and the cost of them is so great that it has been found to be uneconomical to handle gasoline in bulk.

Mr. KELLEY. You pay for your drums the difference between 19.5 cents and 27 cents; that is, 8.5 cents a gallon?

Commander COBEY. Frequently a drum will not last more than a few handlings.

Mr. KELLEY. With 55 gallons, that is \$4.40 when the drum does not st but \$7. That does not look like very good business.

Commander COBEY. The repairs to the drums are very costly, and any times after a drum has been sent out to the fleet it has to be paired. Both plans have been thoroughly tried. In some cases is economical, but in most cases it is not.

Mr. KELLEY. Are there different types of drums varying considerably in price?

Commander COBEY. Yes, sir. The price varies with the steel market.

Mr. BYRNES. What is the average life of a drum of the size you handle—you say that you can not use a drum but several times?

Commander COBEY. If it is sent out to the fleet and distributed to the ships filled with gasoline and it comes back, probably 25 per cent of the drums have to be repaired before further use.

Mr. BYRNES. What are they made of?

Commander COBEY. Fourteen-gauge steel.

Mr. KELLEY. How many more drums do you need to handle your business?

Commander COBEY. I think we would need roughly about 12,000 more drums.

Admiral POTTER. And you have to allow 20 per cent for replacements?

Mr. KELLEY. That would be \$84,000, and you need 3,289,500 gallons gasoline. How much does it cost to deliver a tanker down there and put the gasoline in?

Commander COBEY. I do not think we have any figure.

Mr. KELLEY. How often do you have to replace the drums?

Commander COBEY. We figure roughly on replacing them after three fillings. It all depends upon where the drums go.

Mr. KELLEY. You have worked it out so that you think you are handling it in the most economical way?

Commander COBEY. That has been worked out thoroughly.

MAINTENANCE OF FUEL DEPOTS.

Mr. KELLEY. Can you give me the items for fuel plants?

Captain LEUTZE. We have a statement covering that.

Mr. KELLEY. You may place this statement in the record.

Captain LEUTZE. I will do so.

Statement of maintenance of fuel depots and fuel plants at navy yards and stations chargeable to the appropriation "Fuel and transportation," fiscal year 1923.

Name of station.	Labor.	N. S. A.	Total.
Lamoine, Me.....	\$968.32	.....	\$968.32
Wilmington, N. H.....	12,645.12	\$5,382.36	18,027.48
Worcester, Mass.....	23,373.24	2,483.28	25,856.52
Port, Torpedo Station.....	.....	42,037.32	42,037.32
Wilmington, Fuel Depot.....	47,382.24	36,764.40	84,146.64
Wilmington, Navy Yard.....	7,078.66	1,535.15	8,613.72
Wilmington Hook, N. J., fuel depot.....	29,552.88	12,000.00	41,552.88
Philadelphia, Pa.....	8,315.52	2,506.24	10,821.76
Washington, D. C.....	1,616.16	196.08	1,812.24
Norfolk, Va.....	1,795.92	.....	1,795.92
Yorktown, fuel depot.....	22,856.28	27,360.00	50,216.28

Cost of maintenance of fuel depots and fuel plants at navy yards and stations chargeable to the appropriation "Fuel and transportation," fiscal year 1923—Continued.

Name of station.	Labor.	N. S. A.	Total.
Seawalls Point, fuel depot	\$999.36	\$3,666.84	\$4,666.20
Newport News, fuel depot	10,286.04	3,454.40	13,740.44
Naval operating base	18,873.36	10,685.40	29,558.76
Navy yard, Charleston, S. C.	3,302.16	107.52	3,409.68
Naval air station, Pensacola		5,297.76	5,297.76
Naval station, Key West, Fla.	5,565.96	1,099.68	6,665.64
Submarine base, San Pedro		955.32	955.32
Naval fuel depot, San Diego	38,126.16	11,991.00	50,117.16
Naval air station, San Diego		7,647.72	7,647.72
San Francisco Training Station		6,890.40	6,890.40
Navy yard, Mare Island	13,976.16	20,091.84	34,068.00
Naval fuel depot, Tiburon	47,647.92	3,593.52	51,241.44
Navy yard, Puget Sound	18,489.60	4,715.16	23,204.76
Torpedo station, Keyport		9,594.72	9,594.72
Naval Station, Pearl Harbor	43,169.28	11,859.84	55,029.12
Submarine base, Coco Solo		24,230.76	24,230.76
Naval base, Guantanamo, Cuba	18,163.20	4,496.40	22,659.60
Naval station, Olongapo	16,208.16	31,883.40	48,091.56
Naval station, Cavite	31,080.12	98,231.76	129,311.88
Naval station, Guam		14,229.24	14,229.24
Naval fuel depot, Yokohama	2,573.16		2,573.16
Naval fuel depot, Pichilinque	5,184.00		5,184.00
Naval station, St. Thomas		5,200.20	5,200.20
Naval station, Tutuila		10,853.40	10,853.40
Naval station, Santo Domingo		18,640.44	18,640.44
Naval air station, Coco Solo		7,159.20	7,159.20
Total	429,248.88	446,846.76	876,095.64

The above statement prepared by using actual expenditures reported for the month of January, 1922, as a basis, the figures representing 12 times the amounts reported for that month.

Mr. KELLEY. How much have you spent so far this year on the maintenance of these stations?

Commander COBEY. Less than half of the total shown there. This is based on the January expenditures, and this maintenance has been coming down gradually for the past 18 months.

Mr. KELLEY. Can you give the exact figures so far this year, or at the last available date?

Commander COBEY. We can procure that and insert it in the record.

Mr. KELLEY. Are not these maintenance costs susceptible of being reduced on account of the falling price of some materials?

Admiral COONTZ. I think all of that has been taken into account.

Captain LEUTZE. We have reduced it from the previous figures a great deal. We have cut the estimates for next year under the expenditure for the present year. I have the figure for the eight months ending February 28, the amount being \$849,084.05, and this estimate is \$876,000 for 12 months.

Mr. KELLEY. Some of these will probably be pretty well closed down, will they not?

Captain LEUTZE. That is dependent upon the navy yards going out of commission. A number of these are at navy yards. East Lamaine is gone, and the coal storage at Newport News will go out as soon as the coal is used up, but we can not say how soon that will be, so we put in an estimate for it. The other stations depend upon the closing of certain navy yards.

Mr. KELLEY. You have made quite a substantial reduction in the estimate at navy yards?

Captain LEUTZE. Yes, sir; they are cut down a great deal below the previous figures.

Mr. KELLEY. Do you think we can cut them a little more?

Captain LEUTZE. I do not believe we can. I went over them with a tooth comb the other day in order to cut them down.

Mr. KELLEY. That is about all there is, except some minor items, including tug hire. Where do you have to hire tugs; have you not enough Navy tugs all around?

Commander COBEY. That is where deliveries are made by barges, principally at foreign stations, or at places in the United States where coal or oil is delivered by barge. When the barge is not discharged in time there is a demurrage charge and also a tug-hire charge. It is not a large figure.

Porting sheet for memorandum of 20 March reestimate under "Fuel and transportation, 1923."

WATER.

436.93
426.88

863.81 six months multiplied by 2=197,727.62 for 12 months, 1922.
727.62 multiplied by 0.598 ratio vessels to be in commission in 1923.

241.12
824.11

added 10 per cent to cover vessels not reporting.

065.23

ICE.

232.54 six months multiplied by 2=46,465.08 for 12 months, 1922.
465.08 multiplied by 0.598 ratio vessels to be in commission in 1923

786.12
778.61

added 10 per cent to cover vessels not reporting.

564.73

TUG HIRE.

000.00 12 months, 1922.
.598 multiplied by ratio vessels to be in commission in 1923.

920.00
392.00

added 10 per cent to cover vessels not reporting.

312.00

ELECTRIC CURRENT.

933.82 six months multiplied by 2=247,867.64 for 12 months, 1922.
867.64 multiplied by 0.598 ratio vessels to be in commission in 1923.

224.85
822.49

added 10 per cent to cover vessels not reporting.

047.34

DEMURRAGE.

000.00 12 months, 1922.
.598 multiplied by ratio vessels to be in commission in 1923.

960.00

196.00 added 10 per cent to cover vessels not reporting.

56.00

Estimates, 1923—Cost of leased fuel-oil storage tanks (rental and handling charges) and property used for naval fuel depots chargeable to the appropriation "Fuel and transportation," fiscal year 1923.

Location.	Owner.	Capacity (barrels).	Rental and handling charges.	Total.
Sewall Point, Va.....	Standard Oil Co. of New Jersey	55,000	Rental.....	\$12,000.00
Balboa, No. 101.....	Panama Canal.....	42,000	Rental, \$3,444; handling, \$14,466.24.	17,910.24
Cristobal, No. 151.....	do.....	42,000	Rental, \$3,500; handling, \$5,911.44.	10,411.44
Constantinople.....	Standard Oil Co. of New York.	42,345	Rental.....	26,000.00
Naval fuel depot, Constable Hook.	Standard Oil Co. of New Jersey	(1)	do.....	16,570.00
Naval fuel depot, Sewall Point, Va.	Virginian Ry. Co.....	(2)	do.....	1.00
Naval fuel depot, Newport News, Va.	Chesapeake & Ohio Ry. Co....	(2)	do.....	1.00
Total.....				92,986.64
1 10 acres.		2 42.6 acres.	3 40 acres.	

Handling charges shown above based on actual issues for the 12 months ending January 31, 1922, at \$2.04 per barrel into and \$0.04 per barrel out of tanks.

Captain LEUTZE. The Standard Oil Co. will make a charge for tugs if you hold the tugs over a certain number of hours, because they have to pay for the overtime.

Mr. KELLEY. Of course, while we have plenty of tugs, there are times when we need tugs at places where we have not any, and we have to hire them.

Commander COBEY. Yes, sir; and the demurrage is more or less the same way.

ALASKAN COAL DEVELOPMENT.

Mr. KELLEY. I think these are the most illuminating and helpful details that I have ever seen since I have been here in connection with the fuel item. This has always been a more or less troublesome item, because it can not be reduced to an exact science.

There is one thing in connection with fuel. How much coal will we realize from the Alaska development?

Secretary DENBY. That is another uncertain thing. That has been turned over to the Interior Department, and they are blocking out the naval reserves.

Mr. KELLEY. They do not intend to take any coal out of them!

Secretary DENBY. Yes, sir; there will be coal coming out of there, and we will, perhaps, buy it like anybody else. That can be kept indefinitely underground.

Mr. KELLEY. You could save a lot in freight by getting coal up there, could you not?

Secretary DENBY. The freight is \$5 per ton on coal from Alaska.

Admiral ROBISON. The Secretary of the Interior sent in a letter asking about a differential in favor of Alaska coal over east coast coal at Pacific points, so as to furnish a market for it. According to our estimates, it will cost to deliver Alaska coal in Seattle about .50 per ton more than it costs to deliver Pocahontas coal at Seattle.

do not think that condition will continue, but it is the condition at the present time.

Mr. KELLEY. Do they haul it down by wagons?

Admiral ROBISON. No, sir; over the Alaska railroad, but the Alaska railroad rates are not very low.

Mr. KELLEY. Under the circumstances, you will not want this \$100,000?

Secretary DENBY. No, sir; we have asked for \$100,000.

Mr. KELLEY. You want the language in with the \$100,000?

Secretary DENBY. No, sir; we do not want anything for that.

INDEX.

A.

	Page.
Aeronautics, Bureau of.....	900
Aircraft and equipment, estimate for construction and procurement of, Allocation of.....	909
Airplanes—	
For shore stations.....	918
On hand and required, number of.....	911
Planes in stations and the fleets, maintenance and operation of.....	925
Repairing, average cost of.....	938
Airplanes and balloons.....	910
Appropriations and expenditure for aircraft.....	950
Aviation for marines, supervision of.....	915
Catapults, construction of.....	948
Civilian employees, statement showing number and salaries of.....	946
Civilian office force, salaries.....	902
Draftsmen and technical services.....	945
Engines.....	910
Equipment, cost, and detail of.....	922
Expenditures of air squadrons, Atlantic Fleet, six months, July 1 to December 31, 1921, statement showing.....	926
Expenses incident to personal service.....	904
Fleet aviation, statement showing details of estimate for.....	927
Helium, amount on hand and control of.....	907
Helium plant, operation and maintenance of.....	981
Kite-balloons.....	921
Lakehurst, cost of maintaining.....	985
Lighter-than-air craft being built by Germany for the Navy.....	920
Lighter-than-air craft, estimate for.....	920
Maintenance, operation, and repair of aircraft, etc.....	940
Men to be employed in experimental work, number of.....	941
Miscellaneous expenses, items covered by.....	939
Naval aircraft factory, cost of maintaining.....	986
Statement showing details of maintenance.....	937
Newport experimental station.....	936
Personal services, salary and wages.....	942
Photographic, radio, and miscellaneous equipment and repairs to aircraft.....	922
Roma, destruction of.....	908
Reorganization of.....	900
Shore stations and facilities, statement showing details of maintenance and operation of.....	981
Stations, construction, repair, and improvement of.....	943
Stock at Naval Observatory, maintenance of.....	923
Testing and experimental work, cooperation with Army in.....	942
Towing machines.....	921
Transfer of appropriation, provision for making.....	448
Wooden parts, wings, etc., experiment and development of.....	940
ZR-1, and Giant Boat, cost of construction of.....	905
Air Service:	
Airplanes at Canal Zone.....	432
Distribution of enlisted personnel in.....	430
Machines in actual flying condition, number of.....	431
Men on sea and shore duty, January 1, 1922, total number of.....	432
Stations to be operated and closed under proposed complement.....	431
Alameda, Calif., naval base.....	807

	Page
Alaskan coal development.....	1079
Allocation and disposition of ships and their complements.....	113
Battleships—	
First line, to be kept in commission by treaty.....	113
Second line, that can be kept in commission.....	113
Cargo ships.....	113
Converted yachts.....	113
Allo-yachts:	
Duties and location of.....	114
Cruisers—	
Armored.....	114
Duties of flagship of train.....	114
"Frederick," cost of operating, 1921.....	114
Gun power and military value of.....	114
Number to be kept in commission.....	114
First class.....	114
Second class.....	114
Third class.....	114
Destroyers.....	114
Necessary complements of.....	114
Places and plans of putting out of commission.....	114
Destroyer tenders.....	114
District craft.....	114
Eagle boats.....	114
Naval Reserve, training of.....	114
Fleet aviation.....	114
Distribution of men for.....	114
Fleet towing vessels.....	114
Fuel ships.....	114
Gunboats.....	114
Needed to train Naval Reserves, number of.....	114
Hospital ships.....	114
Mine sweepers.....	114
Miscellaneous ships.....	114
Ammunition.....	114
Target repair.....	114
Radio station supply.....	114
Receiving and barracks.....	114
Monitors.....	114
Ships for training Naval Reserves.....	114
Motor patrol ships.....	114
Naval vessels to be retained after June 30, 1922, according to nomen- clature, statement showing.....	114
Proposed complement of vessels to be retained after June 30, 1922, classified in report of Paymaster General.....	114
Ships manned for Bureau of Fisheries.....	114
Ships used as mine layers.....	114
Shore personnel, distribution of.....	114
Special nonpowered ships.....	114
Special service squadron.....	114
Special type ships.....	114
State nautical school ships, expenses of.....	114
Submarine chasers.....	114
Submarines.....	114
Cost of.....	114
Number and complements of, to be kept in commission, 1923.....	114
Submarine tenders.....	114
Supply ships.....	114
Torpedo-boat tenders.....	114
Transports.....	114
Tugs.....	114
Allocation and complements of, statement showing.....	114
Duties.....	114
Vessels to be retained after June 30, 1922, classified in report of Pay- master General, statement showing.....	114

	Page.
Allocation based on 50,000 men afloat and 15,000 men ashore.....	347
Additional ships, requested, statement showing.....	358
Aircraft carrier.....	355
Battleships, first line.....	354
Battleships, second line, battle cruisers and light cruisers.....	361
Chief petty officers for units of 190,000 men and 65,000 men.....	454
Number of, in Navy, November, 1919.....	456
Cruisers, second line.....	355
Destroyers, eagles, submarine chasers, auxiliaries, etc.....	362
Discharge of men, authority for.....	449
Distribution of ratings in decreasing Navy, statement showing.....	453
District craft.....	370
Enlisted men on hand in Navy by ratings, number of.....	440
Discharged, deserted, retired, dead, 1918, 1921.....	441
In Navy by ratings in 1918, number of, statement showing.....	458
Men the Navy will lose in March, April, May, and June, 1922, estimated number of.....	444
Shortage of enlisted men in 1919, due to discharges.....	457
Enlistments for fiscal year 1922-23, total.....	443
Enlistments, monthly.....	445
Flagships.....	357
Furlough of men, authority for.....	418
Hospital ships.....	357
Keeping Navy at an average of 65,000 men, method of.....	446
Light cruisers, first line.....	355
Men entitled to reserve-law privileges, number of.....	460
Men in Navy July 30, 1921, by years of service, number of.....	459
Men in training and their designation, number of.....	393
Mine layer, second line, destroyers, first line.....	355
Patrol vessels.....	356
Repair and store ships, colliers, oilers, and ammunition ships.....	356
Seven per cent replacements, method of computing.....	395
Ships used for training reserves.....	362
Shore duty, distribution of personnel.....	391
Air Service—	
Actual number required for.....	392
Enlisted personnel at sea and on shore January 1, 1922, total number of.....	435
Hospital force.....	434
Men on, January 1, 1922.....	391
Men required on.....	393
Radio Service.....	408
Reasons for present estimated complaint.....	436
Shore-station activities, reduction of.....	438
Submarine tenders.....	401
Trade schools and training stations, men on duty at.....	392
Training schools, reduction of.....	437
Statement showing.....	349
Submarines, first line.....	356
Tenders, destroyer, submarine, and aircraft.....	356
Transports.....	356
Tugs, mine sweepers, etc.....	357
Using men of higher ratings.....	447
Allocation by Navy of 50,000 men for sea duty.....	385
Authority to discharge men.....	449

B.

Assett, Frederic B., jr., statement of.....	497
Battleship fleet, fiscal years 1916 and 1921 and first quarter fiscal year 1922, detailed cost of.....	8
Statement showing detailed cost of.....	10
Battleships:	
First line, maintenance and operation cost, first quarter, 1922.....	16
Texas, cost of operation, first quarter, 1922.....	6
maintenance and operation, fiscal year 1921 statement showing.....	19

	Page
Battleships on Pacific Coast.....	775
Bennett, E. L., statement of.....	879
Bennett, K. N., statement of.....	729
Board of inspection and examining boards.....	985
Bogue, A. F., statement of.....	487
Branches of service to be left out by suggested allocation of 50,000 men..	387
Brown, M. S., statement of.....	665
Brunner, Henry C., statement of.....	544
Burdick, Hon. Clark, statement of.....	1911

C.

California, naval training station.....	721
Canadian drivers and trawler, statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	174
Cavite, P. I., naval station.....	789
Charleston, S. C., ammunition depot.....	587, 778
Charleston, W. Va.....	589
Chief petty officers on basis of 110,000 men, number of.....	455
Number of in Navy November, 1919.....	456
Civilian naval consulting board.....	985
Claims for damages.....	985
Coast and Geodetic Survey and Bureau of Fisheries vessels.....	192
statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	194
Coast Guard vessels.....	189
statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	190
Coast torpedo vessels, fiscal years 1916 and 1921 and first quarter fiscal year 1922, statement showing detailed cost of.....	91
Cobey, E. A., statement of.....	951
Columbia, ex-Great Northern, expenditures during first two quarters of fiscal year 1922.....	153
Comparative strength of five great powers, statement showing.....	26
Complements, estimate of, for 1923.....	300
Aircraft carriers and tenders.....	313
Ammunition ships.....	312
Atlantic Fleet air squadron.....	341
Scouting squadron, number of men and duties of.....	343
Battleships.....	390
Cargo ships.....	312
Cruisers.....	391
Destroyers.....	391
Destroyer tenders.....	392, 396
Complement of personnel for statement showing.....	394
Flagship complements.....	335
Atlantic Fleet, commander in chief of.....	336
Barge and barge crew.....	337
Control forces of Atlantic Fleet, commander of.....	338
Division and duties of.....	338
Division commander.....	339
Mine squadrons, commander of.....	339
Musicians and bands.....	341
Radio detail.....	342
Signal force.....	342
Special-service squadron, commander of.....	340
Train, Atlantic Fleet, commander of.....	340
Yeomen.....	342
Fleet tugs.....	331
Fuel ships.....	312
Gunboats.....	396
Gunboats, U. S. S. Asheville.....	335
Hospital ships.....	398
Mine layers.....	397
Mine sweepers.....	313, 322

omplements, estimate of, for 1923—Continued.	Page.
New London, Conn., submarine base	315, 326
Distribution of personnel	321
Men required to operate and repair submarines	316
Radio repair ship "Gold Star"	332
Repair ships	312
Ships manned for Bureau of Fisheries	332
Shore base submarine tenders	314
Special duty craft	308
Store ships	312
Submarines	302
Submarines for 1923, allocation of	323
Men for care and repair of submarines, number of	327
New London submarine base	315, 326
San Pedro, Calif., submarine base	323
Submarine tenders	307
Survey ships	331
Target repair ships	333
Transports	313
Construction and Repair, Bureau of	544, 898
Allotments for—	
Aircraft tenders	549
Battleships	545
Cruisers	545
Destroyers	547
Fuel ships	550
Gunboats and patrol vessels	551
Mine layers	549
Repair, ammunition, and store ships	550
Ships out of commission	553
Special-duty craft	552
Submarine tenders	548
Transports	551
Brooms, details concerning	568
Classified force	558
Destroyers, complements of	556
Draftsmen and other technical employees	899
Employees, temporary	898
Estimates by classes, allocation of, for 1923	544
Experimental and research work	559
Leaves and holidays, percentage of	557
Machinery, maintenance of	562
Maintenance of repair of ships maintained for Bureau of Fisheries, cost of	554
Salaries	898
Salary of classified force for 1916 and 1922	558
Supplies and material, for making inventory of	562
Supplies and materials on hand	562
Tonnage for 1916 and 1923, comparison of, to be maintained	565
Yards and stations	560
Contingent expenses	839
Montz, Robert E., statement of	215, 844, 867, 891
Cruisers:	
Armored	19
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	22
First class	26
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	27
Second class	29
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	30
Third class	32
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	33
Murray, Charles F., statement of	748
Murtis, F. S., statement of	833, 844

D.

Denby, Hon. Edwin, statement of.....	215, 633
Letter to Mr. Kelley.....	
Destroyers.....	
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	
Discharges and reenlistments last year, number of.....	
District craft.....	
Accounting naval district expenditures, method of.....	
Allocation and use of at naval stations.....	
Allocation of.....	
Charges against district craft and shore stations, separation of.....	
Craft operated under "fleet maintenance".....	
Designation.....	
Distribution of personnel of.....	
Duties of, enlisted men at Washington, D. C.....	
Functions of.....	
List of, showing location and personnel of.....	
Method of computing personnel for.....	
Operating expenses, total.....	
Operation of naval districts.....	
Personnel, name and location of.....	
Segregation of, between naval yards and naval districts.....	
Type of ship covered by.....	

E.

Eagle boats.....	
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	
Enlisted men:	
By ratings, March 13, 1922, number of.....	#
Discharged, deserted, retired, dead, etc., 1918-1921.....	#
Losses, 1922.....	#
Number of, in 1916.....	#
Shortage of, in 1919.....	#
Enlisted personnel at sea, January 1, 1922.....	#
Enlistments:	
Fiscal years 1922-1923.....	#
Monthly.....	#
Ellyson, T. G., statement of.....	#
Emergency and extraordinary expenses.....	#
Emmet, R. R. M.....	#
Employees in Navy Department proper April 1, 1917, and January 1, 1922.....	#
Engineering Bureau of.....	#
Annual unit cost of each class of vessel.....	#
Classified force, pay of.....	#
Draftsmen and other technical employees.....	#
Employees at navy yard, total number of.....	#
Employees, temporary.....	#
Engineering cost per horsepower.....	#
Expenditures for repairs, 1922.....	#
Experiment station.....	#
Fuel oil, decreased use of.....	#
Great Lakes radio station.....	#
Hawaiian Islands radio station.....	#
Steel towers, erection of, etc.....	#
Industrial yard equipment, renewals to, maintenance of equipment at military stations, etc.....	#
Machinery, repairs, preservation, and renewal of, etc.....	#
Machinery of ships, 1923, amount needed to be expended on.....	#
Material on hand.....	#
Naval petroleum reserves.....	#
Point Isabel, Tex., station.....	#
Towers, erection of.....	#

g. Bureau of—Continued.	Page.
shore stations.....	528
s.....	896
from ships scrapped.....	523
Radio Station.....	530
el towers, construction of, etc.....	530
for 65,000 men, statement of.....	363
ships.....	179
ent showing detailed cost of fiscal years 1916 and 1921 and first ter fiscal year 1922.....	180
al Research Laboratory.....	879
s.....	882

F.

train, duties of.....	234
ette, N. Y., ammunition depot.....	579, 797
cost of operating, 1921.....	235
.....	1002
ransportation.....	1025
.....	117
ent showing detailed cost of fiscal years 1916 and 1921, and first ter fiscal year 1922.....	119
.....	418

G.

S., statement of.....	588
in dependency for hydrographic charts.....	499
s, Ill.:.....	
training station.....	724
station.....	532
ig station.....	801
, E., statement of.....	744, 827, 829
M., statement of.....	900
al station.....	788
o, Cuba, naval station.....	748
.....	103
ent showing detailed cost of fiscal years 1916 and 1921, and quarter fiscal year 1922.....	104

H.

oads (Va.) Naval Training Station.....	727
DeF., statement of.....	606
Islands Radio Station.....	530
ward, statement of.....	695
., statement of.....	215, 844, 891
J., statement of.....	748
orce.....	434
nd.....	597
iips.....	114
ent showing detailed cost of, fiscal years 1916 and 1921, and quarter fiscal year 1922.....	115
ic Office.....	497
offices, location of.....	512
made by Coast and Geodetic Survey.....	502
zent and miscellaneous.....	509
zent expenses, branch hydrographic offices.....	510
lency on Great Britain for charts.....	499
of.....	498
arged for charts to merchant marine.....	501
es in salaries, letters recommending.....	503
il books, purchase and printing of.....	515
il experts, salary and qualifications of.....	512
of expenditure, estimated, 1923, statement showing.....	509
and lake surveys.....	513

Hydrographic Office—Continued.

	Page
Receipts from sale of charts for various years from 1909 to 1921.....	56
Salaries.....	47
Statement showing.....	56
Statutory roll, reduction of.....	57

I.

Increase of the Navy.....	44
Ammunition, use of.....	47
Amount outstanding against uncompleted ships.....	42
Amount required for balance of this fiscal year and next year.....	43
Auxiliaries.....	47
Battle cruisers.....	45
Battleships, amount to be expended next year on.....	45
Construction of vessels to be discontinued under treaty, status of.....	44
Conversion of vessels to aircraft carriers.....	46
Cruisers, amount to be expended on scout.....	46
Destroyers.....	47
Destroyers, amount to be expended on.....	47
Emergency fund.....	42
Expenditures for fiscal year 1922.....	42
Financial status of bureau, July 1, 1922.....	41
Guns, mounts, and fire control.....	42
Guns, 3-inch and 5-inch.....	42
Limit of cost to ships.....	42
Machinery, expenditures for.....	46
Materials on hand, use of.....	43
Outstanding contracts not to be canceled, amounts required to fulfill all.....	43
Outstanding contract obligations.....	43
Scout cruisers.....	42
Ships to be finished, balance over and above all contract obligations.....	42
Submarine construction.....	43
Torpedoes, manufacture of.....	47
Uncanceled contracts, amount required for balance of fiscal year for.....	43
Unexpended balances on hand July 1, 1921, and February 1, 1922.....	43
Vessels to be finished, amount involved in contracts upon.....	43
Vessels under construction February 28, 1922, statement showing.....	43
Increased pay of the Navy, 1920.....	56
Indian Head, Md.....	48
Ingersoll, R. E., statement of.....	48
Iona, N. Y., ammunition depot.....	56

J.

Joiner, W. R., statement of.....	58
Judge Advocate General's office.....	58
Employees, temporary.....	58
Salaries.....	58

K.

Kalbfus, Edward C., statement of.....	57
Keyport, Wash., Torpedo Station.....	57
Key West, Fla., naval station.....	57
Kidd, I. C., statement of.....	57
Knox, D. W., statement of.....	57

L.

Lake Denmark, N. J., ammunition depot.....	56
Land, E. S., statement of.....	56
Lutimer, J. L., statement of.....	54
Leahy, Lamar R., statement of.....	54
Lejeune, John A., statement of.....	54
Lepers, care of, etc., Island of Guam.....	54
Leutze, T. W., statement of.....	54
Library, contingent expenses of.....	54

	Page.
ight tenders.....	186
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	187
ight vessels, statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922.....	196
ighter-than-air craft being built by Germany.....	920
imited complement for ships.....	388
M.	
MacDougall, W. D., statement of.....	517, 695
Marine Island, Calif.:	
Ammunition depot.....	587, 799
Navy yard.....	748
Marine Corps.....	693
Academy graduates assigned to Marine Corps, percentage of.....	658
Additional officers, need of.....	641
Army undershirts.....	682
Articles of clothing.....	684
Article of subsistence, table of.....	681
Civil force, pay of.....	666
Pay of, from lump-sum appropriation of \$100,000, statement showing.....	682
Clothing.....	682
Clothing to be purchased, statement of.....	686
Clothing, undrawn.....	662
Commutation of quarters.....	664
Contingent.....	693
Economies effected.....	634
Enlisted men—	
Active and reserve list, pay of.....	659
Highest pay of.....	668
Performing clerical services, 1921-22.....	668
Retired list, pay allowances for.....	660
Forage.....	693
Fuel.....	689
General statement.....	633
Guards for navy yards, naval stations, etc.....	644
Boston Navy Yard.....	647
Charleston Navy Yard.....	647
Fire departments, guards at navy yards.....	646
Philadelphia Navy Yard.....	645
Portsmouth (N. H.) naval prison.....	647
Washington Navy Yard, Marine Barracks.....	645
Guards for mail trains, expense of.....	635
Marines assigned to Navy Department.....	669
Marine barracks, San Diego, Calif., further development of base, purchase of land, etc.....	694
Marines at San Diego, number of.....	653
Men asked for 1923, number of.....	654
Men required at sea, number of.....	642
Mileage.....	664
Military stores.....	691
Officers and enlisted men, statement showing.....	636
Officers on retired list, pay of.....	659
Pay of officers, active and reserve list.....	656
Pay to constitute one fund.....	670
Per capita expense, reduction in.....	634
Permanent detachments for training stations, etc.....	640
Expeditionary force, east coast, Quantico.....	649
Foreign service, San Domingo.....	650
Haiti.....	650
Parris Island.....	649
Provisions.....	673
Ration, cost of.....	673
Reductions in estimate.....	688
Reenlistments, expirations of enlistments.....	651

Marine Corps--Continued.	Page
Repair of barracks	82
Reserve supplies on hand	61
Reserves	53
Salaries and wages	654
Staple products, purchase of	2
Temporary employees	97
Transportation and recruiting	25
Uniform clothing material, including made-up articles	24
Warrant officers and pay clerks, number of	53
Matthews, Hugh, statement of	53
McCawley, Charles L., statement of	53
McNamee, Luke, statement of	4
McVay, Charles B., jr., statement of	464, 570
Medicine and Surgery, Bureau of	38
Books and stationery	91
Chief clerk, increase in salary of	95
Civilian employees	38
Contingent	91
Hospital fund	37
Hospital patients, care of	93
Patients of Veterans' Bureau, care of	38
Doctors, number of and total number of patients	31
Expense paid by Veterans' Bureau, proportion of	37
Medical officers, additional needed for increase in number of patients	37
Receipts from	37
Remains of officers, etc., bringing home	92
Supplies	38
Surgeons' necessities, etc.	38
Temporary employees	91
Men on hand in Navy during past year, average number of	12
Mine sweepers	11
Statement showing detailed cost of fiscal years 1916 and 1921, and first quarter fiscal year 1922	131
Miscellaneous vessels	18
Statement showing detailed cost of fiscal years 1916 and 1921 and first quarter fiscal year 1922	130
Moffett, William A., statement of	31
Monitors	36
Statement showing detailed cost of fiscal years 1916 and 1921 and first quarter fiscal year 1922	31
Monthly reports of forces employed in Naval Establishment as of January 31, 1922, recapitulation of	105
Moore, R. B., statement of	90
Moses, R. H., statement of	33
Motor patrol boats	17
Statement showing detailed cost of fiscal year 1921 and first quarter fiscal year 1922	16
N.	
Nautical Almanac Office	54
Computers, pay of	54
Salaries	54
Nautical schools, appropriations authorized	54
Naval Academy:	54
Bandsmen, number of	54
Buildings and grounds	54
Choirmaster and organist, increase of salary for	54
Civilian instructors, advisability of reducing number of	54
Commissary department	54
Compensation to midshipmen after graduation	54
Current miscellaneous expenses	54
Board of Visitors, expenses of	54
Books, purchase, binding and repair of	54
Chemicals and philosophical apparatus and instruments	54
Stationery	54
Superintendent, contingencies for	54

	Page.
aval Academy—Continued.	
Dairy	630
Daily ration to pay for, reduction of	631
Electrical engineering and physics, department of	616
Enlisted men as mess attendants	618
Entrance requirements more stringent to reduce classes, making	607
Estimates 1923, increase of	609
Graduates to be commissioned, number of	628
Instructors, civilian and naval, number of	612
Reduction	610
Maintenance and repairs	622
Deferrization plant	623
Fuel	625
Furniture	626
Maintenance and repairs, expenditures and estimates for	627
Paint, lumber, etc	624
Public buildings, wharves, and walls, repairs to	624
Marine engineering and naval construction, department of	617
Naval instructors in place of civilian, use of	610
Ordnance and gunnery, department of	615
Physical instructors, salary increases for	608
Reduction in number of students entering	607
Resignations of students	614
Seamanship, department of	616
aval Communications, Office of Director of	893
Salaries	893
Telegraph operators	894
aval districts, cost of	210
Statement showing detailed cost of fiscal years 1916 and 1921 and first quarter fiscal year 1922	212
aval establishments, statement showing employees at	1015
aval Home	732
aval Intelligence, Office of	894
salaries	895
aval Observatory	517
Books, scientific, books of reference, periodicals, etc	517
Buildings, repairs to, fixtures, etc	518
Contingent expenses	517
Fuel, oil, grease, etc	518
Grounds, cleaning, repair, and upkeep of	520
Instruments and apparatus and repairs to same	518
Miscellaneous computations	517
Salaries	517
aval Operations, Office of Chief of	891
Employees, temporary	892
Salaries	891
aval Overseas Transportation Service ships	158
Statement showing detailed cost of fiscal years 1916 and 1921 and first quarter fiscal year 1922	159
aval petroleum reserves	542
aval ratio as established by conference, department's attitude toward	297
aval records of the War of Rebellion, completion of	889
aval Records and Library, Office of	886
Salaries	886
War records	886
aval reserves, oil wells on	1069
aval supply account	993
avigation, Bureau of	695
Advertising for men and apprentice seamen	715
Contingent	721
Gunnery and engineering exercises	741
Instrument and supplies	716
Compasses, compass fittings, etc	719
Compasses, services and material in repairing, etc	718
Nautical and astronomical instruments	718
Naval Home, Philadelphia	732
Inmates, number of	734
Maintenance, statement showing	735

Navigation, Bureau of—Continued.

	Page
Naval training stations—	
California.....	721
Great Lakes, Ill.....	724
Hampton Roads, Va.....	727
Rhode Island.....	729
Naval War College, Rhode Island.....	732
Pilotage.....	737
Receiving barracks.....	742
Recreation for enlisted men.....	747
Salaries.....	751
Ship stores profits.....	758
Temporary employees.....	761
Transportation and recruiting.....	765
Civilian officers and crews of naval auxiliaries, transportation of.....	713
Civilian officers delivering deserters, etc., transportation of.....	713
Dependents of enlisted men, transportation of.....	716
Enlisted men, apprentice seamen, and applicants for enlistments, transportation of.....	716
Enlisted men discharged at expiration of enlistment, travel allowance of.....	696
Expenses in lieu of mileage to officers with traveling expenses.....	715
Men discharged by medical survey, transportation of.....	712
Men given early discharge, travel allowance to.....	706
Naval Reserve Force.....	729
Recruiting for the Naval Service, expenses of.....	714
Rent of rendezvous, etc.....	714
Reserves, transportation of.....	712
Sick and insane men, transportation of.....	712
New London, Conn., submarine base.....	315.32
Newport, R. I.....	580
Newport, R. I., use of instead of Hampton Roads, Va., for training men.....	1011
New York, N. Y., Navy Yard.....	745
Number of men leaving Navy during past year.....	42
Norfolk, Va., Navy Yard.....	746
Noyes, L., statement of.....	844.93

O.

Oil, reserve supply of.....	1008
Oil reserves.....	1064
Oilers required to meet fuel-oil needs of 100 destroyers, statement showing.....	118
Olongapo, P. I., Naval Station.....	790
Ordnance, Bureau of.....	570.90
Ammunition depots—	
Charleston, S. C., magazine for war heads.....	567
Charleston, W. Va.....	569
Fort Lafayette, N. Y., roof construction.....	579
Indianhead and Dahlgren, Md.....	582
Iona Island, N. Y., repairs to south dock.....	586
Lake Denmark, N. J., addition to water main, etc.....	586
Maintenance of, etc.....	736
Mare Island, Calif., naval ammunition depot, additional storage facilities.....	587
Naval Torpedo Station, Keyport, Wash., torpedo storage.....	587
Newport, R. I., operating expenses.....	590
Pearl Harbor, Hawaii, naval ammunition depot, lighting and power extension.....	587
Contingent.....	588
Draftsmen and other technical employees.....	590
Employees, temporary.....	590
Estimate, details of.....	571
Experimental work.....	590
Guns, relining of.....	571

Ordnance, Bureau of—Continued.

	Page.
Ordnance and stores.....	570
Salaries.....	899
Smokeless powder, purchase and manufacture of.....	585
Turret equipment, overhaul and repair work of.....	575

P.

Pay, miscellaneous	844
Buildings and offices not in navy yards, rent of.....	851
Civilian employees, traveling expenses.....	849
Clerical, inspection and messenger service.....	857
Commissions and interest.....	844
Communication service, comparative statement of.....	862
Exchange, loss on.....	844
Funds, transportation of.....	844
Ice water.....	855
Launches, hire of, etc.....	850
Mileage.....	845
Newspapers, periodicals, etc.....	852
Officers on shore patrol duty, actual expenses of.....	850
Prisoners and prisons.....	852
Special instruction abroad, cost of.....	854
Suits, commissions, warrants, etc., cost of.....	853
Telephone and telegraph service.....	855
Telephone rentals.....	856
Pearl Harbor, Hawaii, ammunition depot	799
Naval Station.....	587, 776
Submarine base.....	804
Percentages of first enlistments, 1920-21	453
Philadelphia, Pa., Navy Yard.....	745
Pinney, F. L., statement of.....	570
Point Isabel, Tex., radio station.....	531
Portsmouth, N. H., Navy Yard.....	744
Potter, David, statement of.....	3, 844, 866, 951
Printing and binding	840
Repay printing.....	843
Statement of.....	842
Provisions for the Navy	978
Puget Sound, Wash., ammunition depot	798
Navy yard.....	706

R.

Radio service	408
Amount which would have been received from Federal Government for Radio Service if charges were made.....	417
Army and Navy cooperation in work.....	424
Capital invested in privately owned.....	420
Communication personnel on shore as of January 31, 1922, statement showing.....	411
Continuing radio practice, advisability of.....	418
Europe.....	419
Government interfering with commercial radios, prohibition by law of.....	420
Haiti.....	425
High-powered radios, Government control of.....	421
High-powered radio stations outside of the United States, location of.....	418
Investment in radio plants now operating.....	417
Men required for, total number.....	415
Naval communication service, fiscal year 1921, etc., statement showing.....	426
New stations, authority for establishing.....	423
Other Government agencies operating.....	424
Privately owned radio service, payment for use of.....	420
Rating and pay of men engaged in.....	430
Revenue obtained from.....	416
Stations and their complements.....	409

	Page
Radio service—Continued.	
Stations and their complements on Great Lakes	415
Stations to be retained and closed upon basis of 15,000 men on shore duty	413
Systems of other Governments and their cooperation	420
Total cost for operating	421
Total operating expense of, by Navy and value of investment	425
Value of the naval shore radio establishment as of April 1, 1921, statement showing	425
Rations, cost of, 1916-1921	18
Ray, Frank S., statement of	50
Reallocation of 50,000 men required by Navy irrespective of type	38
Receiving ships	20
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	207
Reductions in branches of service	394
Reduction of Navy by allowing normal decrease	461
Reed, Clyde, statement of	3, 215, 844, 853
Refrigerators	18
Statement showing detailed cost of, fiscal year 1916 and 1921 and first quarter fiscal year 1922	207
Regular officers in 1921, number of	84
Replacements, difficulty in obtaining accurate	36
Rhode Island Naval Training Station	72
War College	72
Richards, George	63
Robison, J. K., statement of	464, 521, 844
Roma airship, destruction of	98
Roosevelt, Theodore, statement of	3, 215, 829, 833
Rouzer, Lieut. Commander, statement of	74
Rowcliff, G. J., statement of	84
S.	
Samoa radio station	59
San Diego, Calif.:	
Destroyer base	97
Marine barracks	994, 92
Naval hospital	96
San Pedro, Calif., submarine base	323, 94
Sandy Point, Wash., air station	97
Seagoing barges, statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	13
Secretary, office of	83
Chief clerk, increase in salary	84
Clerical force, 1917, 1922	85
Private secretary to, increase in salary of	84
Salaries	83
Temporary employees	82
Separations, 1918-1921, statement of	42
Separations from naval service from November 11, 1918, to December 31, 1921, statement showing	42
Seven per cent replacements, method of computing	36
Shepherd, L. C., statement of	83
Ships (including 18 battleships, 103 destroyers, and 84 submarines, with full complement) which are requested, based upon 50,000 men for sea duty	51
Ships cut from list because of suggested allocation of 50,000 men	52
Ships stationed in European waters	26
Shore personnel, statement showing distribution of	27
Size of Navy, 1917, 1922	85
Smith, statement of	74
Snyder, H. C., statement of	63
Solicitor, office of	88
Employees, temporary	88
Lawyers	88
Salaries	88

	Page
pecial type of vessels.....	153
Statement showing detailed cost of, fiscal years 1916 and 1921, and first quarter fiscal year 1922.....	154
tate marine schools.....	868
tationery, furniture, etc.....	839
teele, jr., G. W., statement of.....	844
titt, E. R., statement of.....	588
ubmarines.....	66
Statement showing detail cost of, fiscal years 1916 and 1921, and first quarter fiscal year 1922.....	68
ubmarine chasers.....	78
Statement showing detailed cost of, fiscal years 1916 and 1921, and first quarter fiscal year 1922.....	81
ubmarine personnel.....	401
upplies and Accounts, Bureau of.....	951
Books, blanks, etc.....	991
Civilian employees, number and pay of.....	989
Clothing and small stores.....	997
Decency of money for transportation, caused by the reduction of the Navy to 65,000 men.....	984
Effect on Navy by reduction to 65,000 men.....	966
Employees at Brooklyn Navy Yard.....	989
Employees, temporary.....	1001
Enlarging fleet reserve to various sizes, cost of.....	977
Field employees paid from appropriation "Maintenance, supplies and accounts," 1922, statement showing.....	990
Fleet reserve, men in, number and pay of.....	975
Freight.....	1002
Fuel and transportation.....	1025
Alaskan coal development.....	1060
Coal.....	1027
Consumption of.....	1041, 1047
Cost at different points.....	1040
Cost per ton.....	1027
Estimates cost of.....	1031
Japanese coal, cost of.....	1033
Use of.....	1048
Requirements.....	1027
Supply on Pacific coast.....	1035
Estimated cost of.....	1037
Fuel depots, maintenance of.....	1077
Fuel oil.....	1050
Consumption of, estimated.....	1066
Price of.....	1065
Reserve supply of.....	1068
Steaming and port consumption of.....	1053
Gasoline, estimates cost of.....	1031, 1072
Requirements for 1923, statement of.....	1075
Naval reserves, oil wells on.....	1069
Oil, estimated cost of.....	1031
Oil reserves.....	1064
Revised estimates.....	1025
Steaming, estimated miles of.....	1043
Interior fittings, etc.....	991
Laborers.....	990
Laboratory equipment.....	992
Material on hand, kind of.....	994
Naval supply account.....	993
Reduction of.....	996
Pay of the Navy.....	951
Auxiliary officers, number and pay of.....	976
Aviation, additional pay for.....	959
Chief petty officers.....	960
Fleet reserve, desire to induce to join.....	968
Reducing number of, difficulty of.....	960
Commissioned officers by grades, number of.....	951

Supplies and Accounts, Bureau of—Continued.

	Page.
Pay of the Navy—Continued.	
Commutation of quarters for officers, gunners, machinists, naval constructors, etc.	956
Deposits, interest of	958
Graduates of Academy, computation to	959
Heat and light for officers, commutation for	952
Loss of property, reimbursement for	973
Men reenlisting with honorable discharge, pay of	955
Midshipmen, number, class, and salary of	955
Naval reserve, retainer pay and active service pay of	956
Nurse Corps, commutation of quarters of	957
Pay of	956
Rent of quarters for	956
Officers of corps, distribution of	954
Officers on retired list, pay of	953
Officers serving with troops, hire of quarters for	957
Pay and allowances of commissioned officers	951
Petty officers and enlisted men, number and grade of	959
Petty officers, seamen, etc., pay of	958
Prisoners, pay of	959
Retired enlisted men, pay of	957
Six months' death gratuity	958
Warrant officers, commissioned, number, grade, and salary of	955
Provisions of the Navy	955
Civilian employees	957
Compensation to midshipmen after graduation, recommendation of Secretary for	957
Estimate for 65,000 men	954
Farm of Academy, advances to for purchase of	954
Inspection costs	957, 958
Maintenance	957
Rations—	
Average cost of	958
Costs, comparison of Army and Navy	957, 958
Court-martial prisoners, rations for	958
Destroyer rations, number and cost of	958
Shore patrols, subsistence of	956
Subsistence for 1923, estimate for	959
Subsistence for nurses, commutation of	957
Survey ashore and afloat, losses occasioned by	954
Value of, on hand	951
Ships and office appliances, material for issue to	951
Ship's equipment	952
Sixteen-year service men eligible for fleet reserve, making	954
Statutory employees, salaries of	1009
Supplies	952
Surplus property, proceeds from sale of	953
Tolls, ferrriage, etc.	952
Transportation rates, statement showing	1004
Transportation, trucks, locomotives, etc.	991
Supply ships	111
Statement showing detailed cost of, fiscal years 1916, 1921, and first quarter fiscal year 1922	112
T.	
Tankers	105
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922	10
Taylor, David W., statement of	464, 544, 823, 85
Torpedo boats, fiscal years 1916 and 1921, and first quarter fiscal year 1922, statement showing detailed cost of	61
Tenders to	8
Statement showing detailed cost of, fiscal years 1916, 1921, and first quarter fiscal year 1922	10
Towner, Hon. Horace M., statement of	89

	Page.
rain, Charles R., statement of-----	737
ransportation and recruiting-----	462
ransportation of dependents of officers-----	864
ransports-----	107
Statement showing detailed cost of, fiscal years 1916, 1921, and first quarter fiscal year 1922-----	108
ags-----	137
Statement showing detailed cost of, fiscal years 1916, and 1921, and first quarter fiscal year 1922-----	138
aituila, Samoa, Naval station-----	788
U.	
nserviceable ships-----	175
Statement showing detailed cost of, fiscal years 1916 and 1921 and first quarter fiscal year 1922-----	176
V.	
are, W. S., statement of-----	1024
essels:	
In United States as of July 1, 1916, and March 1, 1922, statement showing-----	1013
Operation and maintenance of, fiscal years 1916 and 1921, and first quarter fiscal year 1922, cost of-----	3
Various types of, statement showing average cost of equipage-----	41
Special duty-----	129
Statement showing detailed cost of fiscal years 1916 and 1921, and first quarter fiscal year 1922-----	130
eters' Bureau patients-----	589
ining. R. D., statement of-----	951
W.	
ar records-----	886
arren, Lieut. Commander, statement of-----	744
ashington, Thomas, statement of-----	951
atts, William C., statement of-----	741
est Indian Islands, temporary government for-----	867
Information concerning-----	869
Estimates, 1923-----	868
Expenditures of government of-----	878
illiams, Philip, statement of-----	215, 695
ilson, Henry B., statement of-----	606
Y.	
ards and Docks, Bureau of-----	744
Automobiles-----	820
Draftsmen and other technical employees-----	828
Draftsmen, engineers, etc., pay of-----	819
Dry dock facilities on the west coast, including Hawaii-----	832
Maintenance, repairs and preservation-----	807
Passenger cars, statement of-----	823
Philadelphia Navy Yard, estimated expenditure for-----	815
Privately-owned railway cars, repair of, while in custody of Naval Establishment-----	817
Public works—	
Alameda, Calif., naval base-----	807
Cavite, P. I., naval station-----	789
Charleston, S. C., naval ammunition depot-----	796
Dry dock facilities on the west coast, including Hawaii-----	832
Fort Lafayette, N. Y., ammunition depot-----	797
Great Lakes, Ill., Naval Training Station, shore protection and harbor improvement-----	801
Guam Naval Station-----	788
Guantanamo, Cuba, naval station-----	748

Yards and Docks, Bureau of—Continued.

Public works—Continued.

	Page
Iona Island, N. Y., naval ammunition depot.....	733
Keyport, Wash., naval torpedo station.....	734
Key West, Fla., naval station.....	747
Submarine base, development and completion of.....	747
Lake Denmark, N. J., naval ammunition depot.....	735
Mare Island, Calif., naval ammunition depot.....	739
Mare Island, Calif., navy yard.....	748
Army hearings on channel, excerpts from.....	739
Berthing facilities at.....	740
Increased estimates, reason for.....	737
Depth of channel after improvements.....	736
Destruction of wharves and quay walls by teredo.....	735
Dikes, maintenance of.....	748
Amount to be expended for replacement this year.....	752
Necessity of, for maintenance of channel.....	751
Present condition of.....	748
Replacement of, necessity for.....	753
To be replaced, amount of.....	752
Maintenance of channels, Army appropriation for.....	756
Maintenance of dikes and dredging, statement showing.....	756
Pinole Shoals, Mare Island Channel.....	749, 829
Report of board.....	751
Total appropriation for.....	754
Wharves and walls, rebuilding of.....	754
Width and depth of channel.....	750
New York, N. Y., Navy Yard.....	745
Sprinkler system.....	745
Norfolk, Va., Navy Yard.....	746
Water-front improvements to continue.....	745
Olongapo, P. I., Naval Station.....	739
Pearl Harbor, Hawaii, naval ammunition depot.....	739
Additional storage facilities.....	739
Lighting and power extension.....	800
Pearl Island Naval Station, Hawaii.....	737
Amount appropriated to date.....	737
Appropriations, costs, etc., for machine shop.....	739
Dry Dock No. 1, blocking for.....	737
Extension, cost of.....	754
Machine shop, addition to.....	752
Paving, grading, and railroad extension.....	752
Proposed expenditure for addition, itemized statement of.....	751
Storage facilities, additional.....	751
Surplus building, transfer of from Nicetown, Pa., to Pearl Harbor.....	751
Total cost of addition, estimated.....	751
Water supply extension.....	751
Pearl Harbor, Hawaii, submarine base.....	806
Battery storage and overhaul building.....	806
Grading, railway, etc.....	806
Philadelphia, Pa., Navy Yard.....	755
Dredging, etc.....	755
Pile caps, ways Nos. 2 and 3.....	755
Portsmouth, N. H., Navy Yard.....	757
Bridge, construction of.....	758
Puget Sound, Wash., naval ammunition depot.....	758
Puget Sound, Wash., Navy Yard.....	758
Berthing facilities of.....	758
Central power plant improvements.....	758
Cost of range and range site.....	758
Distance of proposed range from navy yard.....	758
Dredging area between piers 7 and 8, cost of.....	758
Extension of pier No. 4.....	758
Footage of piers.....	758
Rental of site and cost of its purchase.....	758

Yards and Docks, Bureau of—Continued.

Public works—Continued.

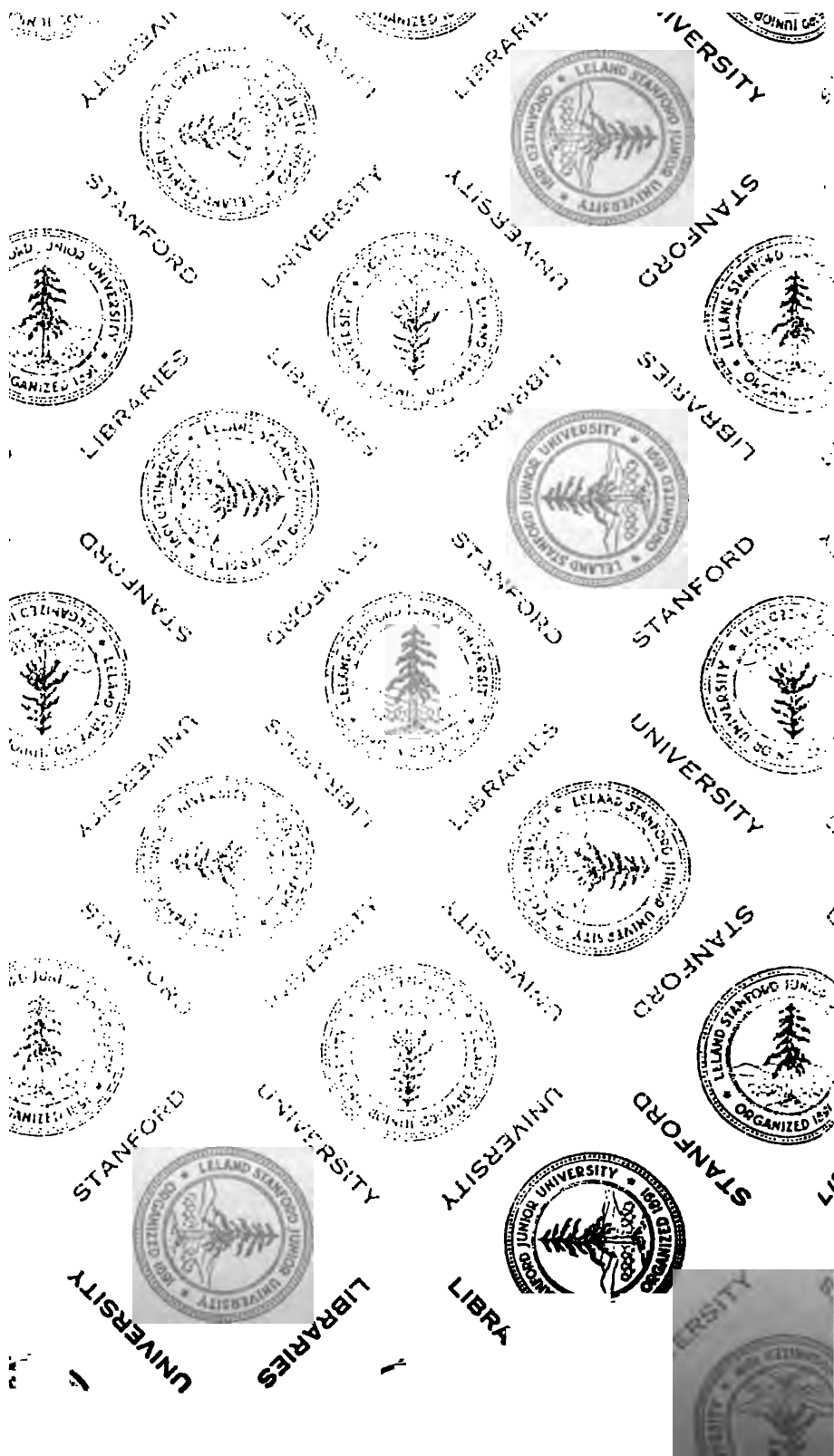
Puget Sound, Wash., Navy Yard—Continued.	Page.
Rifle range, including purchase of land.....	772
Roadways and sidewalks.....	767
Vessels to be berthed, number of.....	769
San Diego, Calif., destroyer base.....	807
San Diego, Calif., marine barracks.....	802
Naval hospital.....	803
Sandy Point, Wash., naval air station.....	807
San Pedro, Calif., submarine base.....	804
Tutuila, Samoa, Naval station.....	788
Salaries.....	827
Temporary employees.....	828











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